FAS RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	1
	ILLINOIS	CONTRACT NO. 99678		

CONTRACT NO. 99678

LOCATION OF SECTION INDICATED THUS: –■–

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS SPECIAL BRIDGE PROGRAM

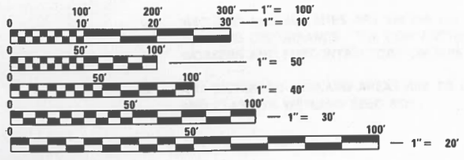
DETAIL PLANS FOR
FAS 937 (CH 2 / TICK RIDGE ROAD)
OVER POST CREEK CUTOFF
SECTION 12–00071–00–BR
PROJECT 1 FDA (058)
PULASKI COUNTY

JOB NO. C–99–528–13

INDEX OF SHEETS 01-16-2026 LETTING ITEM 177

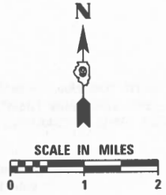
DESIGN CLASSIFICATION

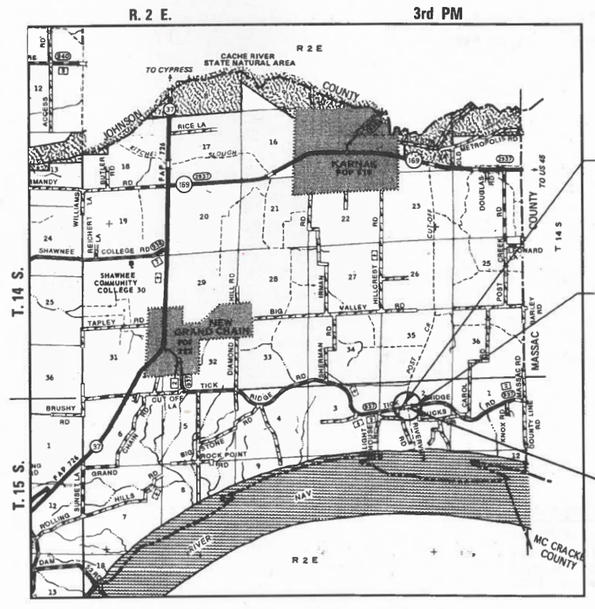
MAJOR COLLECTOR (NON-URBAN)	ADT = 400-750
EXISTING ADT	= 550 (2018)
DESIGN ADT	= 725 (2041)
DESIGN SPEED	= 50 MPH



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811





SECTION 12-00071-00-BR
BEGINS STA 28+90

SECTION 12-00071-00-BR
ENDS STA 37+90

PROJECT LOCATION

EXISTING STRUCTURE NO. 077-3000
PROPOSED STRUCTURE NO. 077-3145
STATION 33+06.00
THREE SPAN, PRECAST PRESTRESSED CONCRETE I-BEAMS (54" DEPTH) ON SPILL THRU PILE BENT INTEGRAL ABUTMENTS & PIERS SUPPORTED ON DRILLED CONCRETE SHAFTS. THE PROPOSED STRUCTURE MEASURES 274'-0" BACK TO BACK OF ABUTMENTS WITH A 28'-0" CLEAR ROADWAY WIDTH.

LOCATION MAP

GROSS LENGTH = 900 FT. = 0.170 MILE
NET LENGTH = 900 FT. = 0.170 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED October 15th 2025
Bill Zdankiewicz
PULASKI COUNTY ENGINEER

PASSED October 21 20 25
DISTRICT 8 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID BASED UPON LIMITED REVIEW October 21 20 25
DEPUTY DIRECTOR OF HIGHWAYS
REGION 5 ENGINEER

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899
EXPIRES 04/30/2027

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

LICENSED PROFESSIONAL ENGINEER
KERMIT B CHRISTMANN
062-073152
STATE OF ILLINOIS

Kermit B Christmann DATE: 7/9/2025
KERMIT B. CHRISTMANN, P.E., S.E.
REGISTERED PROFESSIONAL
ENGINEER IN ILLINOIS, NO. 062-073152

EXPIRES: NOVEMBER 30, 2025

GENERAL NOTES

1. ALL ELEVATIONS IN THE PLANS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY HAVE BEEN CAUSED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL EXISTING UNDERGROUND UTILITIES. THE APPROXIMATE LOCATIONS OF THE KNOWN UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST INFORMATION AVAILABLE AT THE TIME OF DESIGN.

3. THE CONTRACTOR SHALL GIVE AT LEAST TWO WEEKS NOTICE BEFORE BEGINNING CONSTRUCTION SO THE ENGINEER MAY GIVE ADEQUATE NOTICE TO ALL EMERGENCY, SCHOOL AND POSTAL SERVICES.

4. THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL AND PROTECTION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING POSITIVE DRAINAGE IN THE DISTURBED AREAS, TO THE SATISFACTION OF THE ENGINEER. ANY GRADING SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

6. IF ASH TREES ARE REMOVED ON THE PROJECT, THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH MEASURES SPECIFIED BY THE ILLINOIS DEPARTMENT OF AGRICULTURE (IDOA) TO PREVENT THE SPREAD OF THE EMERALD ASH BORER. THE IDOA INFORMATION FOR ASH TREE REMOVAL CAN BE FOUND ON THE IDOA WEBSITE AT WWW.AGR.STATE.IL.US/EAB.

7. GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE FILLS OR CUTS ARE ADJACENT TO THESE ITEMS. IT IS THE INTENT THAT THE LIMITS OF CONSTRUCTION BE SUCH AS TO PRESERVE, IN THE ORIGINAL STATE, AS MUCH AREA AS POSSIBLE. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

8. THE FOLLOWING APPLICATION RATES HAVE BEEN USED IN THE CALCULATION OF THE PLAN QUANTITIES:

AGGREGATE BASE/SUBBASE GRANULAR MATERIAL	2.05 TONS/CY
RIPRAP	1.6 TONS/CY
TEMPORARY DITCH CHECKS	11 FT/DITCH CHECK
TEMPORARY EROSION CONTROL SEEDING	2 APPLICATIONS OVER SEEDING AREA
HOT-MIX ASPHALT	2.016 TONS/CY = 112 LBS/SY/IN

COMMITMENTS

THE COUNTY HAS MADE THE FOLLOWING COMMITMENTS FOR THE PROJECT. COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE. THE FOLLOWING IS A GENERAL SUMMARY AND DOES NOT CONTAIN FULL DETAILS. THE CONTRACTOR SHALL ADHERE TO THESE CONDITIONS.

1. A TREE CLEARING RESTRICTION FOR ANY TREE THREE (3) INCHES OR GREATER IN DIAMETER MEASURED AT BREAST HEIGHT IS PRESENT BETWEEN APRIL 1 AND SEPTEMBER 30 DUE TO POTENTIAL ENDANGERED BAT HABITATS.

2. WETLAND AND INAI SITES ARE SHOWN ON THE PLANS AND SHALL BE CLEARLY MARKED TO AVOID DISTURBANCE. THE CONTRACTOR SHALL NOTE THESE AREAS AND ADVISE ALL WORKERS AND SUBCONTRACTORS ON THIS PROJECT TO AVOID THESE AREAS.

3. ANY DISTURBED WETLAND AREAS ARE TO BE RE-SEEDED UTILIZING AN IDOT CLASS 4 AND CLASS 5B WETLAND SEED MIX.

HIGHWAY STANDARDS

000001-09	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-11	PAVEMENT JOINTS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
515001-04	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAIN
606401-02	PAVED DITCH
630001-13	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 M) AWAY
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701901-11	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
725001-01	OBJECT AND TERMINAL MARKERS
728001-01	TELESCOPING STEEL SIGN SUPPORT
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 22-7	TYP. APPL. OF T.C.D. FOR RURAL LOC. HWYS. (2-LANE 2 WAY RURAL TRAFF.) (RD. CLOSED TO THRU TRAFF.)

KNOWN UTILITY COMPANIES

COMMUNICATIONS

FRONTIER COMMUNICATIONS (SOUTH)
MARION, IL. 62959
(815) 895-1515
ATTN: KALIN HINSHAW

ELECTRIC

SOUTHERN ILLINOIS ELECTRIC CO-OP
DONGOLA, IL. 62926
(618) 827-3555
ATTN: MICHAEL LOGEMAN

WATER

FORT MASSAC WATER DISTRICT
METROPOLIS, IL. 62960
(618) 543-7475
ATTN: DAVID TRAVIS

MODEL: DefaultR
FILE NAME: H:\7073 Pulaski Co CH2\2025-PSE Updates\CAD Sheets\07373000-03 General 7073.dgn

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmann	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/7/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, HIGHWAY STANDARDS AND COMMITMENTS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	2
		CONTRACT NO. 99678		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FUNDING: 80% State, 20% Local
20200100	EARTH EXCAVATION	CU YD	1,230	1,230
20400800	FURNISHED EXCAVATION	CU YD	775	775
20800150	TRENCH BACKFILL	CU YD	26	26
25000210	SEEDING, CLASS 2A	ACRE	0.75	0.75
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	68	68
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	68	68
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	68	68
25100115	MULCH, METHOD 2	ACRE	0.50	0.50
25100630	EROSION CONTROL BLANKET	SQ YD	555	555
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	150	150
28000305	TEMPORARY DITCH CHECKS	FOOT	407	407
28000400	PERIMETER EROSION BARRIER	FOOT	286	286
28000500	INLET AND PIPE PROTECTION	EACH	1	1
28100205	STONE RIPRAP, CLASS A3	TON	41	41
28200200	FILTER FABRIC	SQ YD	76	76
31100100	SUBBASE GRANULAR MATERIAL, TYPE A	TON	29	29
35100100	AGGREGATE BASE COURSE, TYPE A	TON	776	776
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	3,830	3,830
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	346	346
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	388	388

CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FUNDING: 80% State, 20% Local
40604052	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N70	TON	130	130
42000060	WELDED WIRE REINFORCEMENT	SQ YD	74	74
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	97	97
42001300	PROTECTIVE COAT	SQ YD	765	765
44000100	PAVEMENT REMOVAL	SQ YD	1,261	1,261
44004000	PAVED DITCH REMOVAL	FOOT	496	496
44004250	PAVED SHOULDER REMOVAL	SQ YD	275	275
48100100	AGGREGATE SHOULDERS, TYPE A	TON	45	45
48203100	HOT-MIX ASPHALT SHOULDERS	TON	118	118
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50105220	PIPE CULVERT REMOVAL	FOOT	50	50
50200100	STRUCTURE EXCAVATION	CU YD	162	162
50300100	FLOOR DRAINS	EACH	10	10
50300225	CONCRETE STRUCTURES	CU YD	349.9	349.9
50300255	CONCRETE SUPERSTRUCTURE	CU YD	302.8	302.8
50300260	BRIDGE DECK GROOVING	SQ YD	960	960
50300300	PROTECTIVE COAT	SQ YD	1,314	1,314
50401105	F & E PRECAST PRESTRESSED CONCRETE I-BEAMS, 54 IN.	FOOT	1,077	1,077
50800105	REINFORCEMENT BARS	POUND	50,530	50,530
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	187,080	187,080

*SPECIALTY ITEM

	CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FUNDING: 80% State, 20% Local
	50800530	MECHANICAL SPLICERS	EACH	348	348
	51201900	FURNISHING STEEL PILES HP14X89	FOOT	564	564
	51202305	DRIVING PILES	FOOT	564	564
	51203900	TEST PILE STEEL HP14X89	EACH	2	2
	51204650	PILE SHOES	EACH	14	14
	51500100	NAME PLATES	EACH	1	1
	51602000	PERMANENT CASING	FOOT	167	167
	51603000	DRILLED SHAFT IN SOIL	CU YD	122.0	122.0
	51604000	DRILLED SHAFT IN ROCK	CU YD	49.4	49.4
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	58	58
	54213675	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	EACH	2	2
	542A0235	PIPE CULVERTS, CLASS A, TYPE 1 30"	FOOT	69	69
	58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	110	110
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	79	79
	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4
	60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	135	135
	60617510	PAVED DITCH, TYPE B-30	FOOT	602	602
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	100	100

	CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	FUNDING: 80% State, 20% Local
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4
	63200310	GUARDRAIL REMOVAL	FOOT	291	291
	67100100	MOBILIZATION	L SUM	1	1
*	72000100	SIGN PANEL - TYPE 1	SQ FT	12	12
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4
*	72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	32	32
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	3,600	3,600
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	6	6
*	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	10	10
	Z0004552	APPROACH SLAB REMOVAL	SQ YD	84	84
	X0320050	CONSTRUCTION LAYOUT (SPECIAL)	L SUM	1	1
	X0320051	CROSSHOLE SONIC LOGGING ACCESS DUCTS	FOOT	1,008	1,008
	X0320052	CROSSHOLE SONIC LOGGING TESTING	EACH	6	6
	X2010510	CLEARING AND GRUBBING	L SUM	1	1
	X2810110	STONE RIPRAP, CLASS A5 (SPECIAL)	SQ YD	3,393	3,393
	X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	200	200
	X5040100	PRECAST BRIDGE APPROACH SLAB	SQ FT	1,690	1,690
	X5110306	SLOPE WALL BREAKING	SQ YD	3,393	3,393
#	Z0076600	TRAINEES	HOUR	1,000	
	X5230174	DRAINAGE SCUPPERS, DS-11	EACH	4	4
#	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1,000	
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1

* SPECIALTY ITEM

\# 0042

HMG ENGINEERS

HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR

IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 2 OF 2 SHEETS | STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	4

CONTRACT NO. 99678

ILLINOIS | FED. AID PROJECT

PROPOSED TYPICAL SECTION NOTES:

THE PROPOSED PAVEMENT WIDTH WILL VARY FROM THE EXISTING WIDTH (10'-0" ±) TO THE PROPOSED WIDTH (13'-0") WITHIN THE 50'-0" TRANSITIONS AT THE ENDS OF THE PROJECT.

WITHIN THE 50'-0" TRANSITIONS AT THE ENDS OF THE PROJECT, THE PROPOSED HMA SHOULDER WILL TRANSITION FROM THE EXISTING WIDTH (0'-0") TO THE PROPOSED WIDTH (2'-0"). THE PROPOSED AGG SHOULDER (2'-0") SHALL BE CONSTRUCTED TO THE ENDS OF THE PROJECT EXCEPT ON THE NORTH SIDE OF THE ROAD, EAST SIDE OF THE BRIDGE.

NEAR THE PROPOSED GUARDRAIL, THE PROPOSED AGG SHOULDER WILL BE ELIMINATED AND REPLACED WITH A FULLY PAVED HMA SHOULDER. SEE PLAN AND PROFILE SHEETS FOR LIMITS.

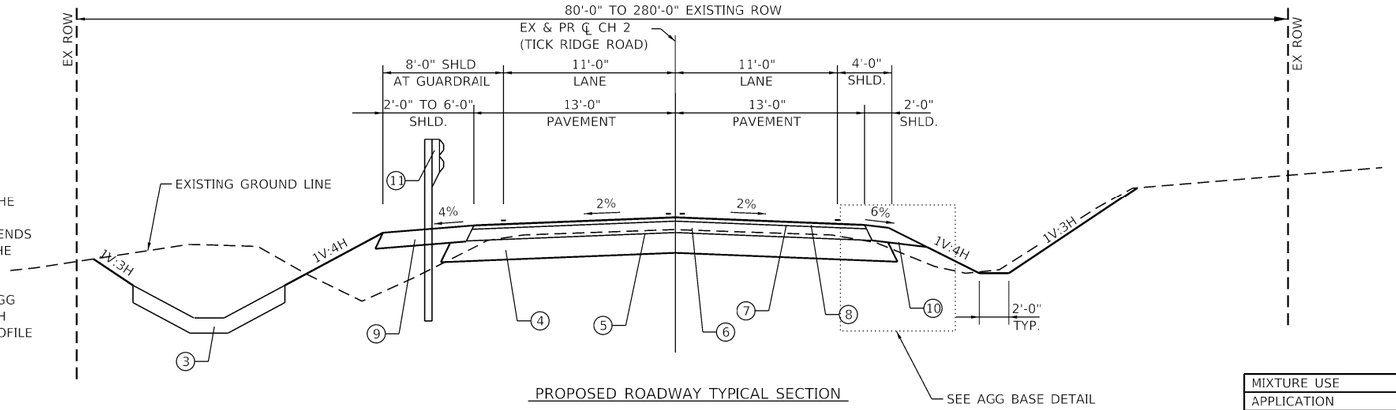
PROPOSED GUARDRAIL MAY BE LOCATED ON ONE SIDE, BOTH SIDES OR NEITHER SIDE.

PROPOSED FORESLOPES TRANSITION FROM 1V:4H AT THE END OF THE APPROACH SLAB TO 1V:2H AT THE BACK OF THE ABUTMENT.

PROPOSED PAVED DITCHES ARE LOCATED FROM STA 34+41.00 TO STA 37+40.00 LEFT AND RICHT.

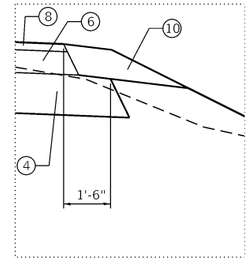
PROPOSED STRUCTURE OMISSION STA 31+69.00 TO STA 34+43.00.

SEE STRUCTURE PLANS FOR CONSTRUCTION OF THE BRIDGE APPROACH SLABS TERMINATING AT STA 31+40.00 AND STA 34+72.00.



PROPOSED ROADWAY TYPICAL SECTION

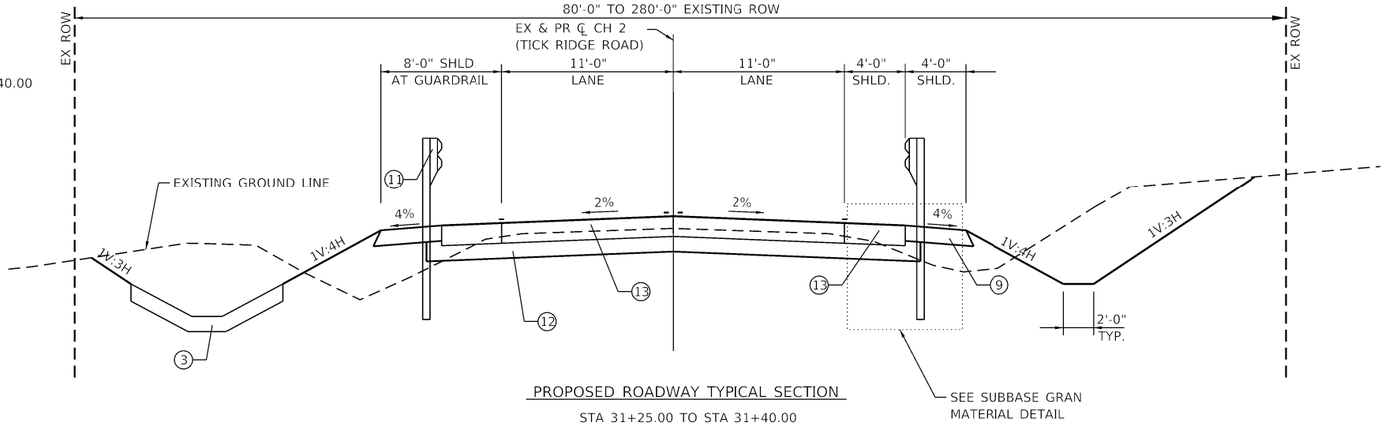
STA 28+90.00 TO STA 31+25.00
STA 34+87.00 TO STA 37+90.00



AGG BASE DETAIL

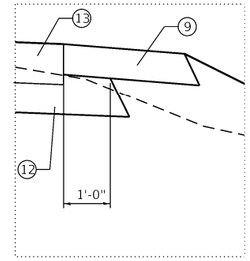
MIXTURE USE	SURFACE	BINDER	SHOULDERS
APPLICATION	HMA SC, IL-9.5, "C", N70	HMA BC, IL-19.0, N70	HMA SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPECIF	SEE SPECIF	SEE SPECIF
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION	IL 9.5	IL 19.0	IL 19.0
FRICTION AGG	MIXTURE "C"		
QUALITY MGMT PROG.	QC/QA	QC/QA	QC/QA

HMA MIXTURE COMPOSITION



PROPOSED ROADWAY TYPICAL SECTION

STA 31+25.00 TO STA 31+40.00
STA 34+72.00 TO STA 34+87.00

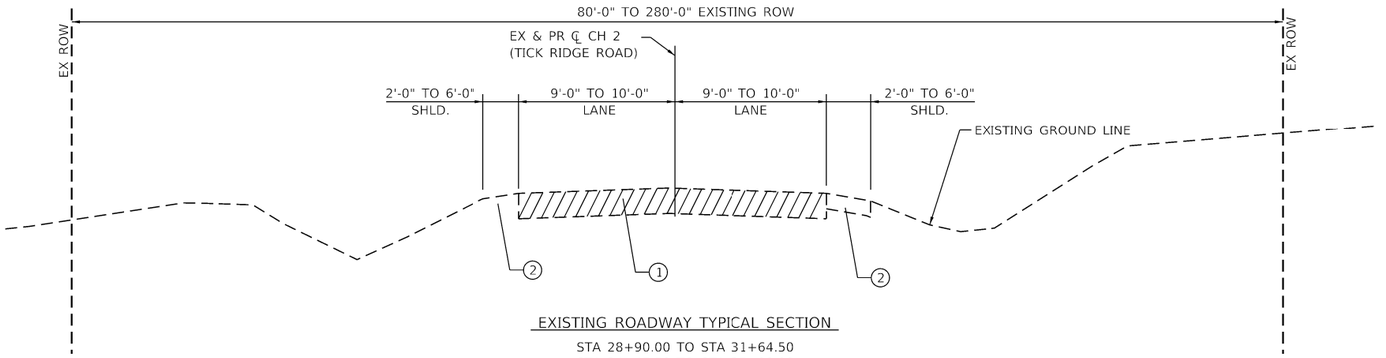


SUBBASE GRAN MATERIAL DETAIL

EXISTING TYPICAL SECTION NOTES:

EXISTING PAVEMENT VARIES IN THICKNESS FROM 0'-8" (WEST OF BRIDGE) TO 1'-3" (EAST OF BRIDGE).

EXISTING SHOULDER (PCC) AND EXISTING PAVED DITCH ARE APPROXIMATELY 0'-6" THICK.



EXISTING ROADWAY TYPICAL SECTION

STA 28+90.00 TO STA 31+64.50
STA 34+47.50 TO STA 37+90.00

LEGEND

1. EX ROADWAY (8" TO 15" HMA PAVEMENT)
2. EX SHOULDER (EARTH AND PCC)
3. PR PAVED DITCH, TY B-30
4. PR AGG BASE CSE, TY A (8")
5. PR BIT MAT (PRIME COAT)
6. PR HMA BIND CSE, IL-19.0, N70 (4.5")
7. PR BIT MAT (TACK COAT)
8. PR HMA SURF CSE, IL-9.5, MIX "C", N70 (1.5")
9. PR HMA SHLD (6")
10. PR AGG SHLD, TY A (6")
11. PR SPBGR AND TBT
12. PR SUBBASE GRAN MATERIAL, TY A (6")
13. PR PAVT CONNECTOR (PCC) FOR BRIDGE APPR SLAB (8" MIN)

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmarn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL ROADWAY SECTIONS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	5

CONTRACT NO. 99678

ILLINOIS | FED. AID PROJECT

MODEL: Default
FILE NAME: H:\7073 Pulaski\Co CH2\2025-PSE Updates\CAD Sheets\0773000_05 TypRdwySec_7073.dgn

EARTHWORK SCHEDULE

LOCATION	A PAVEMENT, PAVED SHOULDER AND PAVED DITCH	B EARTH EXCAVATION	C = 0.75 x B EARTH EXCAVATION ADJUSTED FOR SHRINKAGE/LOSS	D REQUIRED FILL	E = C - D BALANCE: WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD	CU YD
STA 28+90.00 TO STA 30+00.00	103.2	191.1	143.3	138.6	4.7
STA 30+00.00 TO STA 31+69.00	140.7	97.0	72.8	768.3	-695.6
STA 31+69.00 TO STA 34+43.00 BRIDGE	------	------	------	------	------
STA 34+43.00 TO STA 36+75.00	192.3	717.3	538.0	703.0	-165.0
STA 36+75.00 TO STA 37+90.00	57.3	223.2	167.4	84.3	83.1
TOTAL	493.5	1,228.6	921.5	1,694.2	-772.8
USE	495	1,230	925	1,695	-775

NOTES:
SCHEDULE ASSUMES A 25% SHRINKAGE/LOSS FACTOR FOR EARTH EXCAVATION.
COLUMN "A" - ESTIMATED VOLUME OF MATERIAL PRODUCED BY THE REMOVAL OF THE EXISTING PAVEMENT, THE EXISTING PAVED SHOULDER AND THE EXISTING PAVED DITCH. THIS VOLUME HAS BEEN CALCULATED USING THE PAVEMENT THICKNESSES DEFINED IN THE TYPICAL SECTIONS AND A THICKNESS OF 0'-6" FOR THE PAVED SHOULDER AND PAVED DITCH (BASED ON OLD PLANS). THIS VOLUME ALSO HAS BEEN INCLUDED IN COLUMN "D" SUCH THAT THE SITE IS BACK TO THE ORIGINAL ELEVATION AFTER THE REMOVAL OF THE AFOREMENTIONED ITEMS.
COLUMN "B" - ESTIMATED VOLUME OF CUT MATERIAL PRODUCED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. THIS VOLUME HAS BEEN CALCULATED USING CROSS-SECTION END AREAS.
COLUMN "C" - ESTIMATED VOLUME OF CUT MATERIAL ADJUSTED FOR SHRINKAGE/LOSS AND SUITABLE FOR EMBANKMENT.
COLUMN "D" - ESTIMATED VOLUME OF FILL MATERIAL REQUIRED TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THIS VOLUME HAS BEEN CALCULATED USING CROSS-SECTION END AREAS.
COLUMN "E" - BALANCE OF ADJUSTED CUT MATERIAL AND FILL MATERIAL.

REMOVAL SCHEDULE

LOCATION	CLEARING AND GRUBBING	PAVEMENT REMOVAL	GUARDRAIL REMOVAL	PIPE CULVERT REMOVAL	PAVED SHOULDER REMOVAL	PAVED DITCH REMOVAL	APPROACH SLAB REMOVAL
	L SUM	SQ YD	FOOT	FOOT	SQ YD	FOOT	SQ YD
STA 29+15.50 RT TO STA 31+69.00 RT	0.08 ACRES						
STA 30+90.00 LT TO STA 31+69.00 LT	0.03 ACRES						
STA 34+43.00 RT TO STA 36+20.00 RT	0.08 ACRES						
STA 34+54.5 43.0' LT	6 UNITS						
STA 34+57.5 35.9' LT	10 UNITS						
STA 34+57.6 36.8' LT	6 UNITS						
STA 35+60.2 36.6' LT	8 UNITS						
STA 35+65.5 38.9' LT	6 UNITS						
STA 35+66.8 34.8' LT	12 UNITS						
STA 35+67.8 36.9' LT	6 UNITS						
STA 35+69.7 35.9' LT	6 UNITS						
STA 35+71.2 35.1' LT	10 UNITS						
STA 31+42.7 17.8' LT (NO PASSING ZONE)							
STA 34+66.7 21.8' RT (NO PASSING ZONE)							
STA 28+90.00 TO STA 31+64.00		573.8	208.2	49.6		40.1	43.4
STA 34+47.00 TO STA 37+90.00		686.5	81.9		274.2	455.1	40.2
TOTAL	1	1260.3	290.1	49.6	274.2	495.2	83.7
USE	1	1261	291	50	275	496	84

NOTES:
CLEARING AND GRUBBING CONSISTS OF CLEANING UP THE DEBRIS (STUMPS, TREES, ETC.). INFORMATION SHOWN (ACRES, UNITS) ON THE SCHEDULE IS FOR INFORMATION ONLY.

EROSION CONTROL AND SEEDING SCHEDULE

LOCATION	SEEDING, CLASS 2A	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 2	EROSION CONTROL BLANKET	TEMPORARY EROSION CONTROL SEEDING	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	STONE RIPRAP, CLASS A3	FILTER FABRIC
	ACRE	POUND	POUND	POUND	ACRE	SQ YD	POUND	FOOT	FOOT	EACH	TON	SQ YD
STA 28+90.00 LT TO STA 31+69.00 LT	0.16	14.3	14.3	14.3	0.11	232.4	31.8	88.0			16.6	31.1
STA 28+90.00 RT TO STA 31+69.00 RT	0.13	11.8	11.8	11.8	0.09	232.0	26.3	77.0	285.7	1	15.3	28.8
STA 34+43.00 LT TO STA 37+90.00 LT	0.13	12.0	12.0	12.0	0.12	44.7	26.7	121.0			4.1	7.6
STA 34+43.00 RT TO STA 37+90.00 RT	0.12	10.5	10.5	10.5	0.11	44.6	23.3	121.0			4.2	7.8
TOTAL	0.54	48.7	48.7	48.7	0.43	553.7	108.1	407.0	285.7	1	40.2	75.3
USE	0.75	67.5	67.5	67.5	0.50	555	150	407	286	1	41	76

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	6
		CONTRACT NO. 99678		
	ILLINOIS FED. AID PROJECT			

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PAVING SCHEDULE

LOCATION	SUBBASE GRANULAR MATERIAL, TYPE A	AGGREGATE BASE COURSE, TYPE A	BITUMINOUS MATERIALS (PRIME COAT)	BITUMINOUS MATERIALS (TACK COAT)	HMA BINDER COURSE, IL-19.0, N70	HMA SURFACE COURSE, IL-9.5, MIX "C", N70	WELDED WIRE REINFORCEMENT	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	PROTECTIVE COAT
	TON	TON	POUND	POUND	TON	TON	SQ YD	SQ YD	SQ YD
STA 28+90.00 TO STA 31+25.00		337.8	1668.3	150.6	168.7	56.2			
STA 31+25.00 TO STA 31+69.00	14.1						36.7	48.3	48.3
BRIDGE OMISSION									
STA 34+43.00 TO STA 34+87.00	14.1						36.7	48.3	48.3
STA 34+87.00 TO STA 37+90.00		437.6	2161.3	195.3	218.7	72.9			
TOTAL	28.2	775.4	3829.6	345.9	387.4	129.1	73.3	96.7	96.7
USE	29	776	3,830	346	388	130	74	97	97

SHOULDER SCHEDULE

LOCATION	AGGREGATE SHOULDERS, TYPE A	HOT-MIX ASPHALT SHOULDERS
	TON	TON
STA 28+90.00 LT TO STA 30+33.00 LT	10.9	
STA 30+33.00 LT TO STA 31+69.00 LT		23.7
STA 28+90.00 RT TO STA 29+83.00 RT	7.1	
STA 29+83.00 RT TO STA 31+69.00 RT		34.9
BRIDGE OMISSION		
STA 34+43.00 LT TO STA 36+29.00 LT		34.9
STA 36+29.00 LT TO STA 37+90.00 LT	10.3	
STA 34+43.00 RT TO STA 35+79.00 RT		23.7
STA 35+79.00 RT TO STA 37+90.00 RT	16.0	
TOTAL	44.3	117.2
USE	45	118

GUARDRAIL SCHEDULE

LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TERMINAL MARKER- DIRECT APPLIED	GUARDRAIL REFLECTORS, TYPE A	BARRIER WALL REFLECTORS, TYPE C
					CRYSTAL	CRYSTAL
	FOOT	EACH	EACH	EACH	EACH	EACH
STA 30+67.2 LT TO STA 31+56.5 LT		1	1	1	1	
STA 30+17.2 RT TO STA 31+56.5 RT	50.0	1	1	1	2	
STA 31+55.0 TO STA 34+57.0 BRIDGE						10
STA 34+55.5 LT TO STA 35+94.8 LT	50.0	1	1	1	2	
STA 34+55.5 RT TO STA 35+44.8 RT		1	1	1	1	
TOTAL	100.0	4	4	4	6	10
USE	100.0	4	4	4	6	10

THE SPACING OF THE REFLECTORS (GUARDRAIL AND BARRIER) IS 61'-0" STARTING 50'-0" FROM THE END OF THE PROPOSED GUARDRAIL.

PAVEMENT MARKING AND SIGNING SCHEDULE

LOCATION	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"		SIGN PANEL - TYPE 1	TELESCOPING STEEL SIGN SUPPORT
	WHITE	YELLOW		
	FOOT	FOOT	SQ FT	FOOT
STA 28+90.00 TO STA 31+25.00	470.0	470.0	6.0	16.0
STA 31+25.00 TO STA 31+69.00	88.0	88.0		
STA 31+69.00 TO STA 34+43.00	548.0	548.0		
STA 34+43.00 TO STA 34+87.00	88.0	88.0		
STA 34+87.00 TO STA 37+90.00	606.0	606.0	6.0	16.0
TOTAL	1800.0	1800.0	12.0	32.0
USE	3,600		12	32

DRAINAGE SCHEDULE

LOCATION	PIPE CULVERT, CLASS A, TYPE 1 30"	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	TRENCH BACKFILL	PAVED DITCH, TYPE B-30	PROTECTIVE COAT
	FOOT	EACH	CU YD	FOOT	SQ YD
STA 31+00.00 42.7' LT TO STA 31+00.00 37.9' RT	68.3	2	25.9		
STA 34+41.00 30.4' LT TO STA 37+40.00 20.3' LT				300.8	333.7
STA 34+41.00 30.5' RT TO STA 37+40.00 20.4' RT				300.6	333.6
TOTAL	68.3	2	25.9	601.4	667.3
USE	69	2	26	602	668

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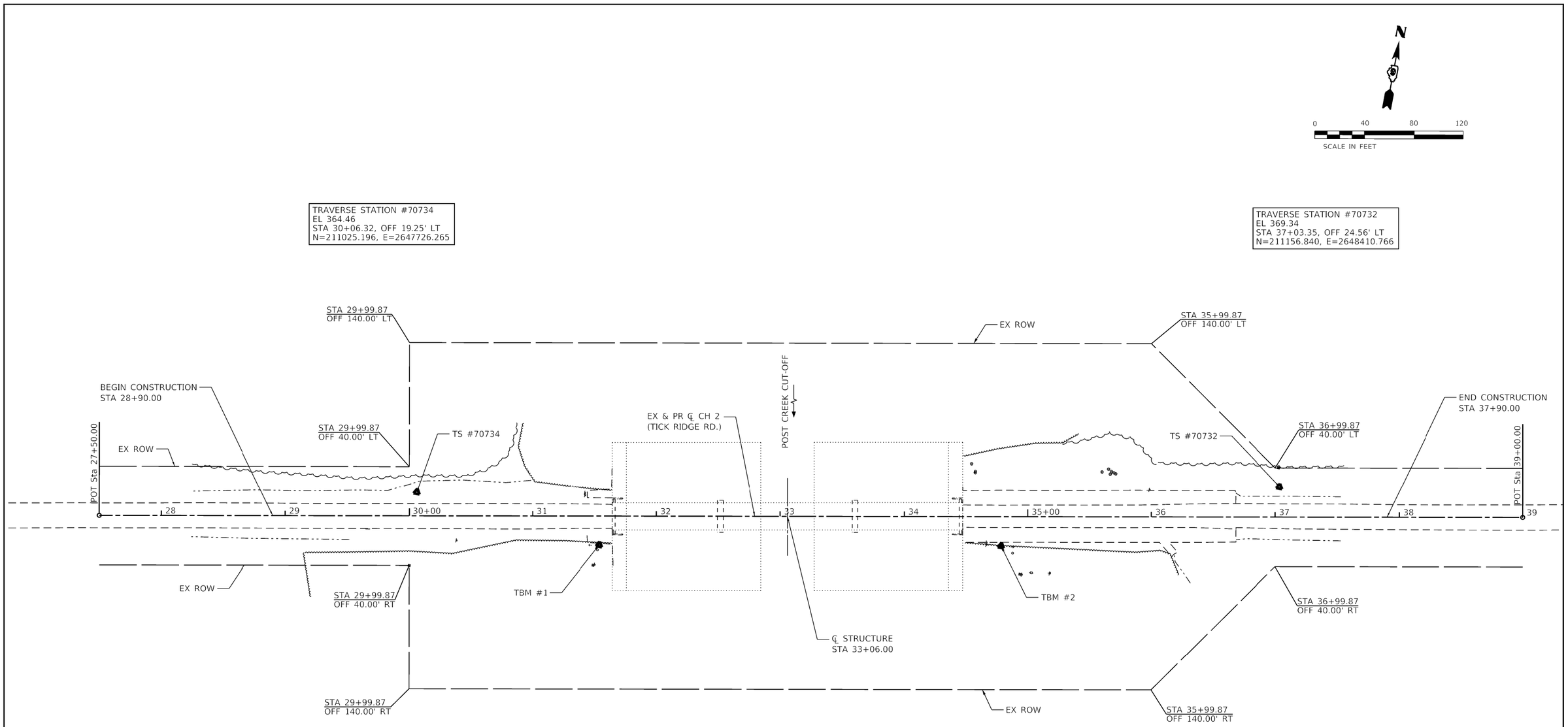
SCHEDULE OF QUANTITIES

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	7
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		



TBM #1 (RR SPIKE IN PP)
EL 364.03
STA 31+53.97, OFF 23.26' RT
N=211010.169, E=2647879.172

TBM #2 (RR SPIKE IN PP)
EL 365.19
STA 34+78.42, OFF 23.64' RT
N=211068.645, E=2648198.305

CENTERLINE SUMMARY		
STATION	NORTHING	EASTING
27+50.00 (POT)	210959.771	2647477.684
39+00.00 (POT)	211168.358	2648608.609

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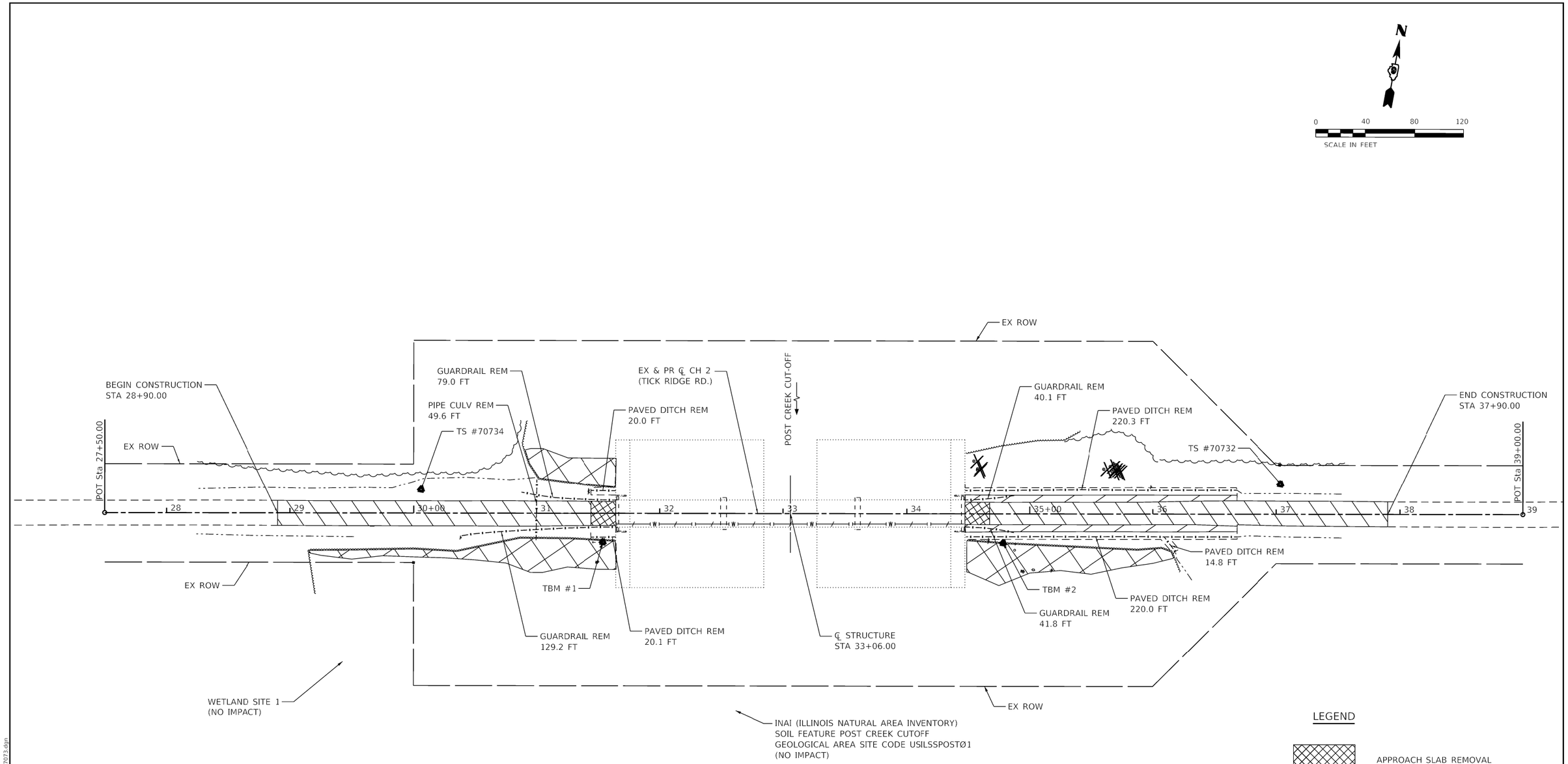
ALIGNMENT, TIES AND BENCHMARKS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	8
		CONTRACT NO. 99678		
	ILLINOIS FED. AID PROJECT			



LEGEND

- APPROACH SLAB REMOVAL
- PAVEMENT REMOVAL
- PAVED SHOULDER REMOVAL
- CLEARING AND GRUBBING (ACRES)
- X — CLEARING AND GRUBBING (UNITS)
- LINEAR REMOVAL ITEMS

NOTE:
CONTRACTOR SHALL AVOID ANY ACTIVITIES IN, OR DISTURBANCE OF, WETLAND AND ILLINOIS NATURAL AREAS AS SHOWN AND/OR IDENTIFIED BY THE ENGINEER.

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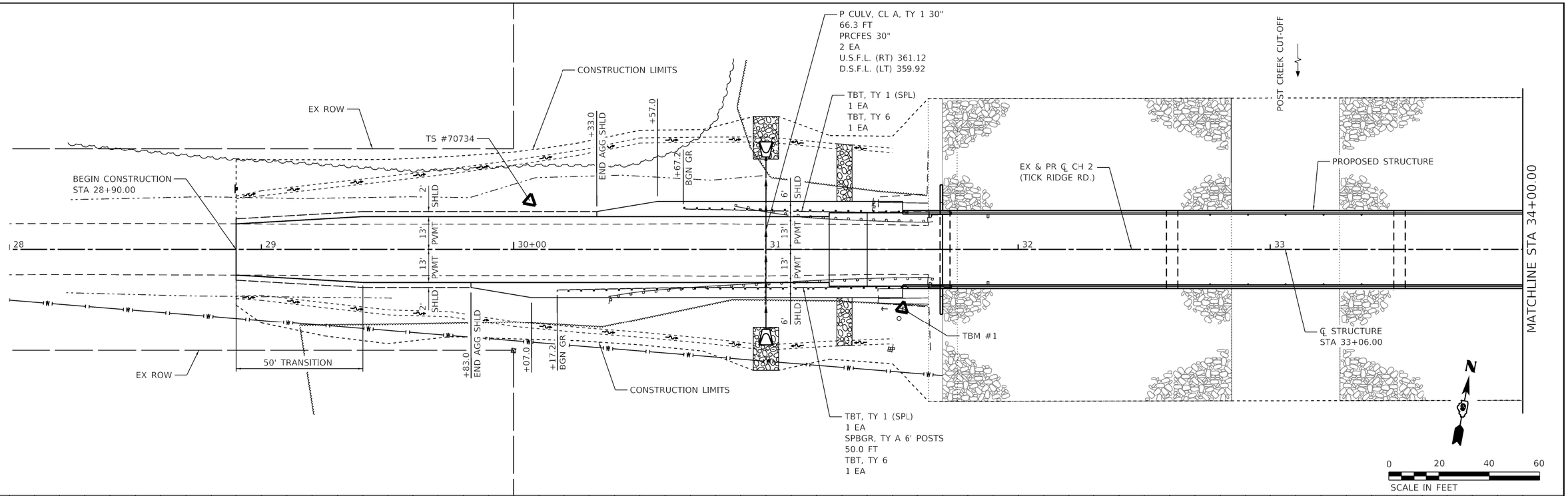
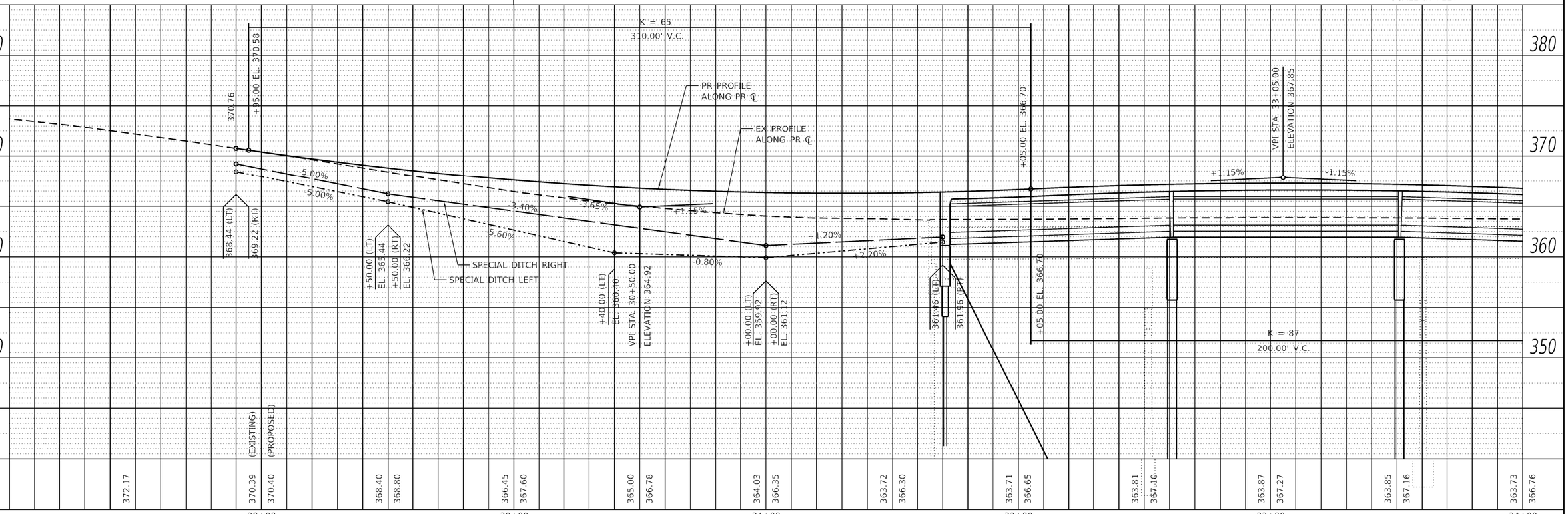
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN REMOVALS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	9
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	





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PROFILE — SURVEYED — PLOTTED — CHECKED — B.M. NOTED — NOTE BOOK — NO. — BY — DATE

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HMG ENGINEERS — HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR — IL PROF. DESIGN FIRM NO. 184.000899	USER NAME = bchristmann	DESIGNED -	REVISED -
		DRAWN -	REVISED -
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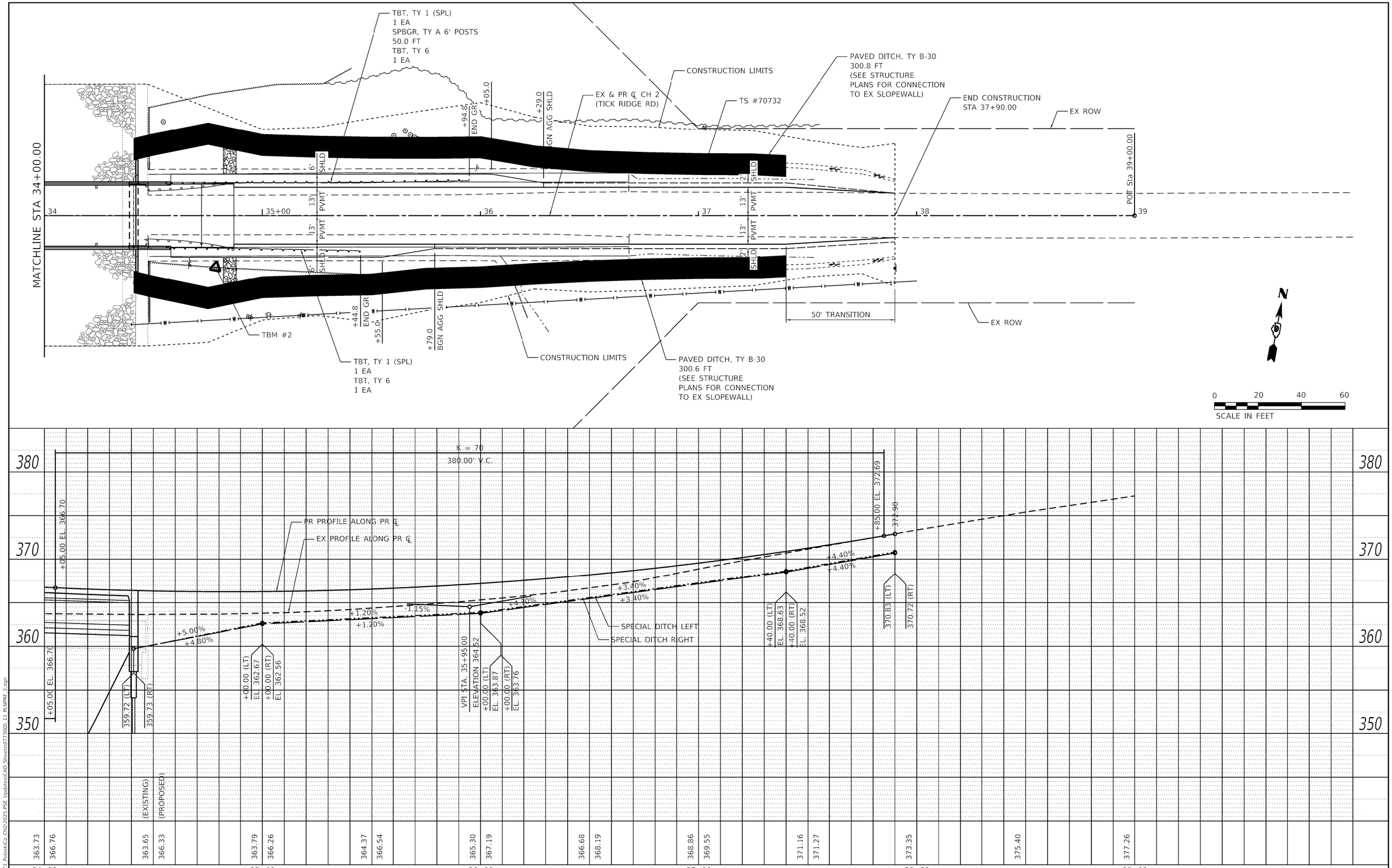
	PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
EXISTING & PROPOSED ROADWAY

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	10
		CONTRACT NO. 99678		
		ILLINOIS FED. AID PROJECT		



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SURVEYED
PLOTTED
CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
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BY
DATE

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PLOTTED
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B.M. NOTED
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BY
DATE
STATUS
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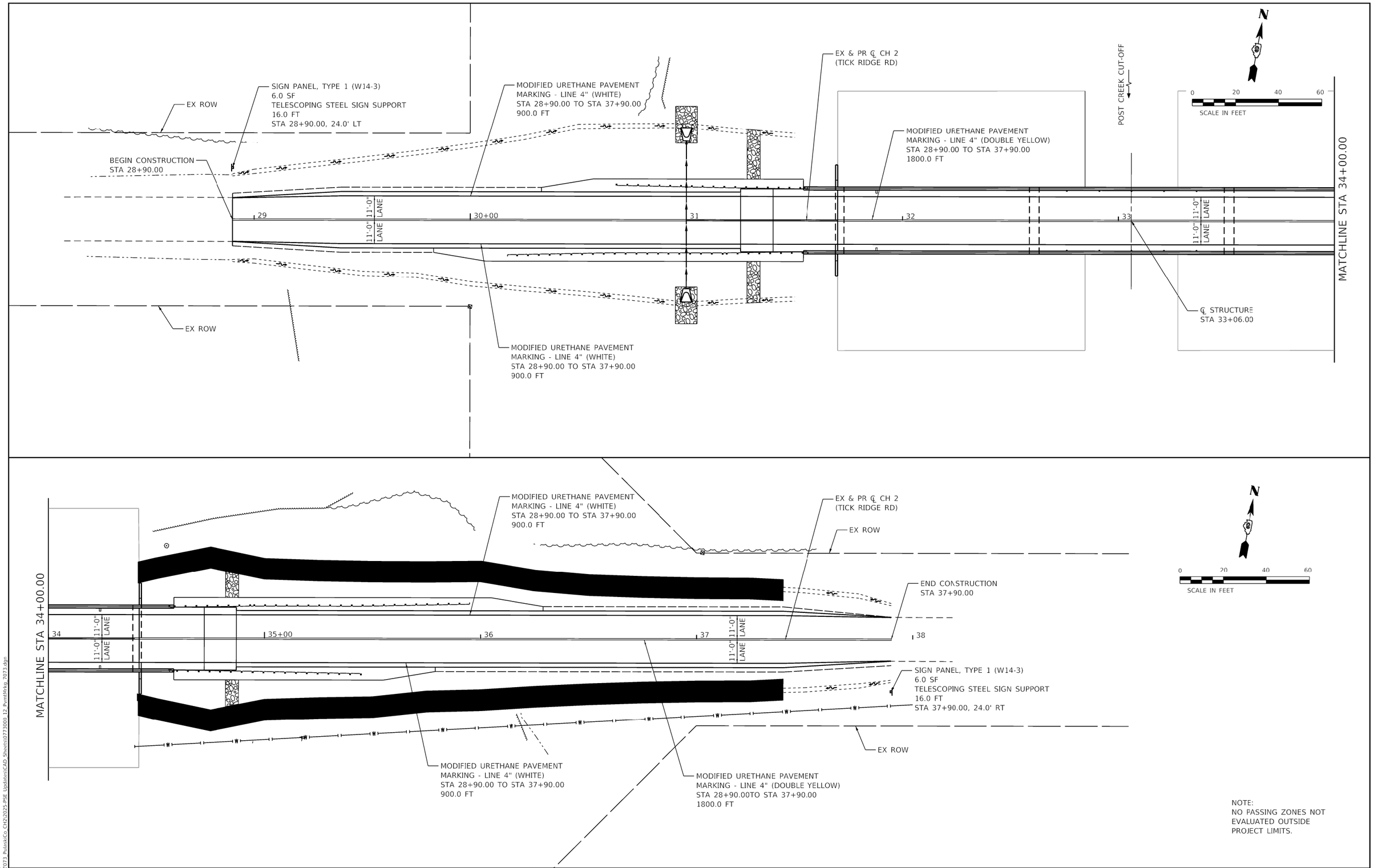
PLAN AND PROFILE
EXISTING & PROPOSED ROADWAY

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	11
		CONTRACT NO. 99678		
	ILLINOIS FED. AID PROJECT			



NOTE:
NO PASSING ZONES NOT EVALUATED OUTSIDE PROJECT LIMITS.

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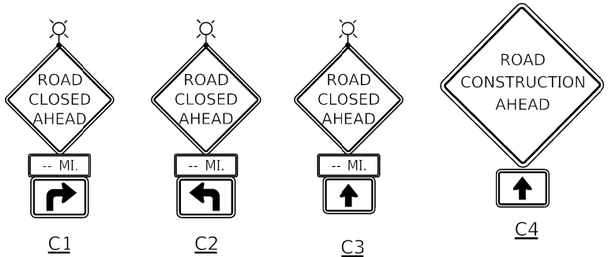
PAVEMENT MARKING

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	12
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	



C1

C2

C3

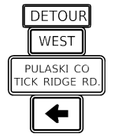
C4

C5

D1

D2

W1



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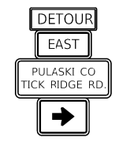

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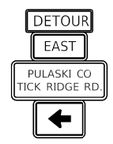

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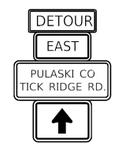

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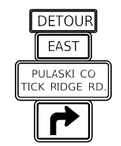

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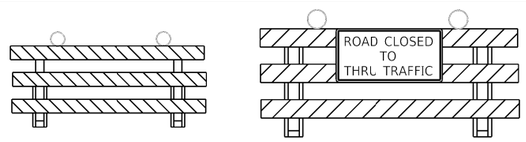
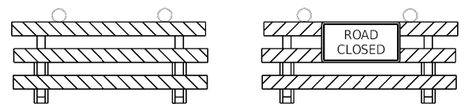


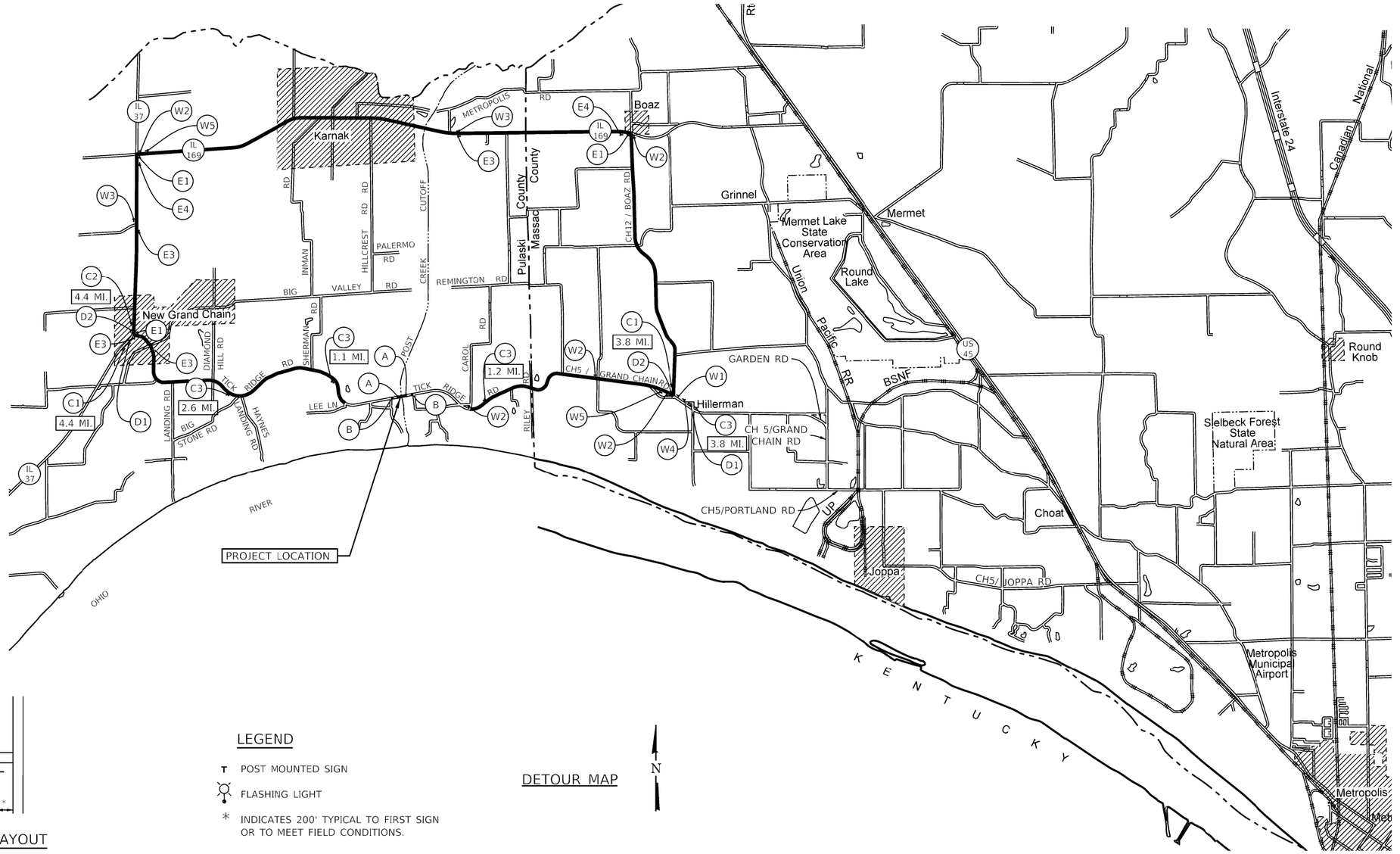
LOCATION (B)



LOCATION (A)

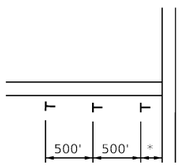
NOTES:

1. ENGINEER MAY MODIFY SIGN PLACEMENT TO MEET FIELD CONDITIONS.
2. ALL ADVANCED WARNING SIGNS SHALL BE 48" x 48" AND HAVE A BLACK LEGEND ON A FLUORESCENT ORANGE REFLECTORIZED BACKGROUND.
3. ALL ADVANCED WARNING SIGNS SHALL INCLUDE LOW INTENSITY FLASHING LIGHTS.
4. DETOUR SIGNING ASSEMBLY SHALL MAINTAIN THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN NO LESS THAN 5 FEET ABOVE THE EDGE OF PAVEMENT.
5. ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE FOR STABILIZATION.
6. AT LOCATIONS WHERE TYPE III BARRICADES ARE STAGGERED THE 'ROAD CLOSED TO THRU TRAFFIC" SIGN SHALL BE PLACED ON THE FRONT BARRICADE.
7. ALL ITEMS OF WORK INVOLVED WITH THE ROAD CLOSURE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
8. THE CONTRACTOR SHALL NCTIFY THE RESIDENT ENGINEER 72 HOURS PRIOR TO CLOSURE.



DETOUR MAP

N



TYPICAL SIGN LAYOUT

LEGEND

T POST MOUNTED SIGN

FLASHING LIGHT

* INDICATES 200' TYPICAL TO FIRST SIGN OR TO MEET FIELD CONDITIONS.

MODEL: Default
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BREESE, ILLINOIS 62230
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IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmarn	DESIGNED -	REVISED -
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PLOT SCALE = 8000.000 ' / in.	CHECKED -	REVISED -
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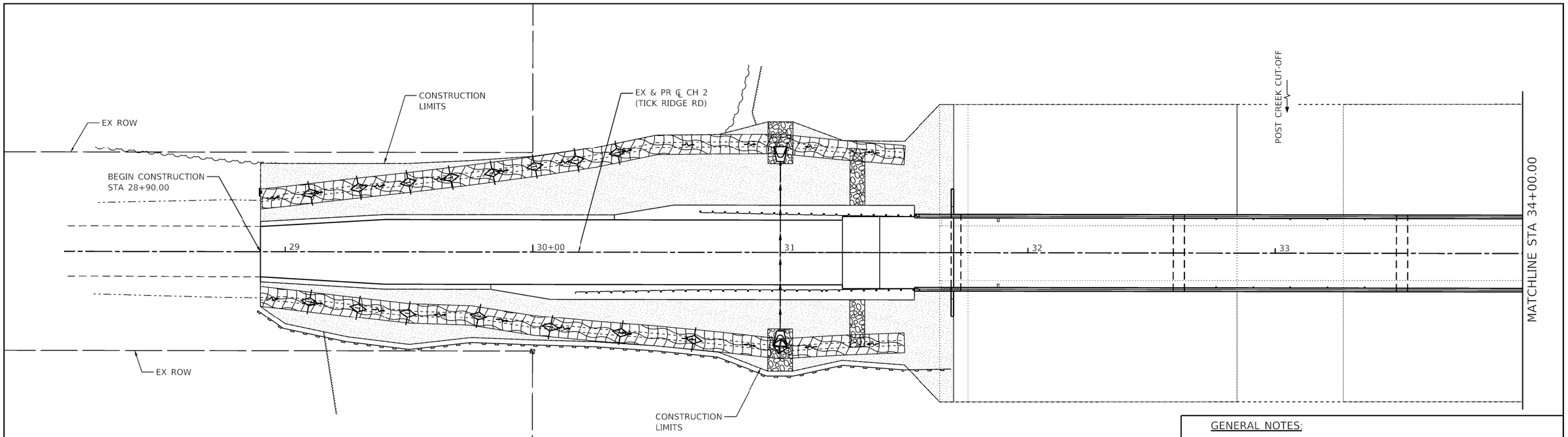
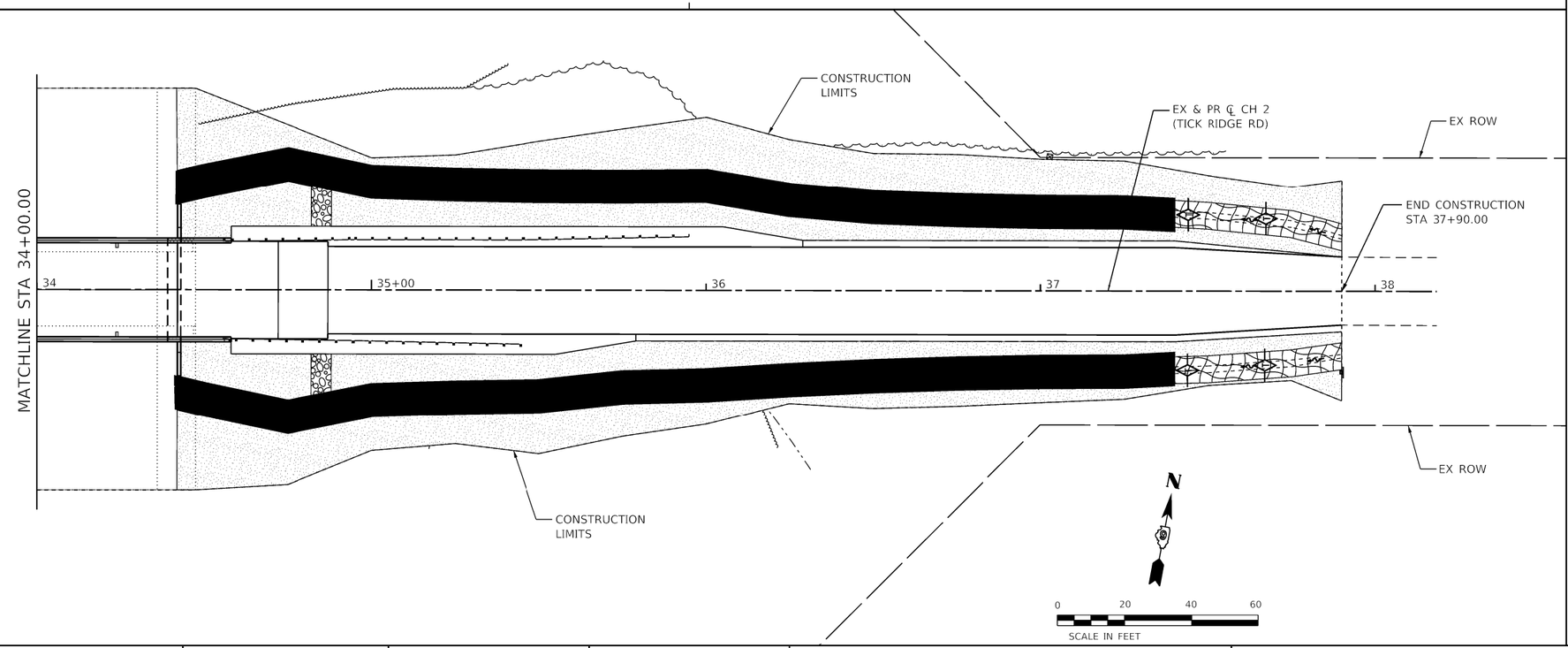
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR MAP

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	13
		CONTRACT NO. 99678		
	ILLINOIS FED. AID PROJECT			





GENERAL NOTES:

1. CONTRACTOR SHALL CONSULT JOB SPECIFICATIONS FOR MORE INFORMATION.
2. LAYOUT OF EROSION CONTROL MEASURES MAY BE ADJUSTED IN FIELD BY ENGINEER FOR VARYING GROUND CONDITIONS.
3. TEMPORARY DITCH CHECKS SHALL BE URETHANE FOAM/GEOTEXTILE DITCH CHECKS.
4. HAY OR STRAW BALES SHALL NOT BE USED FOR DITCH CHECKS.
5. AGGREGATE DITCH CHECKS SHALL BE PLACED ACCORDING TO THE DETAILS SHOWN IN THESE PLANS AND AS DIRECTED BY THE ENGINEER.
6. ALL DISTURBED AREAS SHALL RECEIVE TEMPORARY EROSION CONTROL SEEDING AS DESCRIBED IN SPECS. UNTIL PERMANENT STABILIZATION CAN BE PERFORMED.
7. EROSION CONTROL BLANKET SHALL BE WILDLIFE-FRIENDLY AND PLASTIC FREE TO PREVENT THE ENTANGLEMENT OF NATIVE WILDLIFE.
8. THE COUNTY WILL ASSUME RESPONSIBILITY FOR MAINTAINING EROSION CONTROL MEASURES THROUGH FINAL STABILIZATION AFTER IDOT ACCEPTANCE OF WORK BY CONTRACTOR.

LEGEND

- SEEDING, CLASS 2A AND HEAVY DUTY EROSION CONTROL BLANKET
- STONE RIPRAP, CLASS A3 AND FILTER FABRIC
- SEEDING, CLASS 2A AND MULCH, METHOD 2
- PERIMETER EROSION BARRIER
- DITCH FLOW ARROW
- TEMPORARY DITCH CHECK
- INLET AND PIPE PROTECTION
- PAVED DITCH

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PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	14
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

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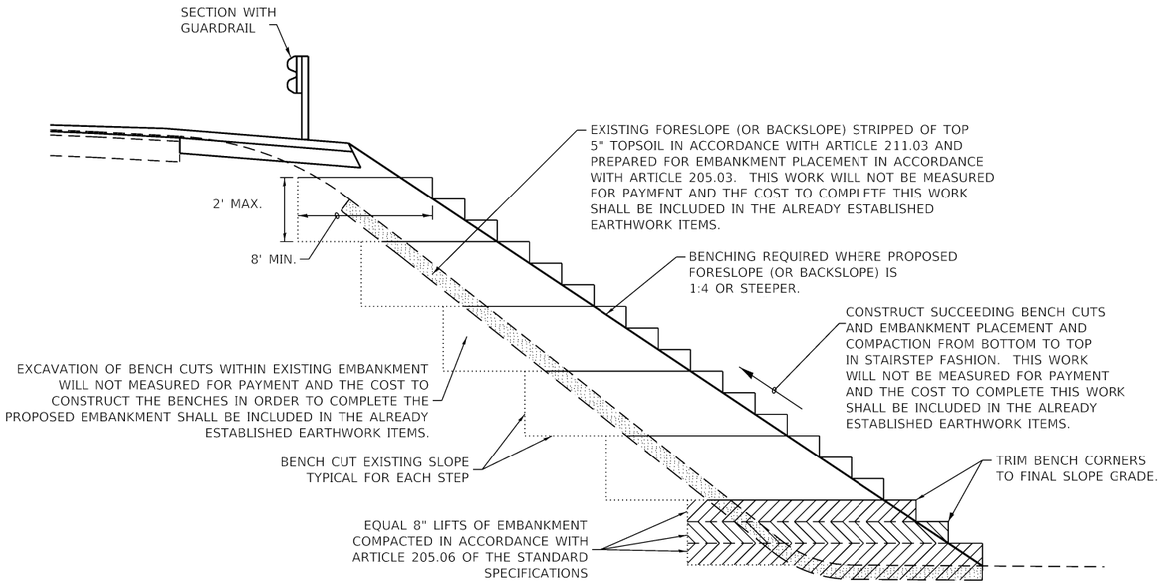
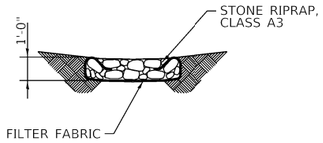


TYPICAL BENCHING FOR EMBANKMENTS DETAIL

(NOT TO SCALE)



STONE RIPRAP DETAIL

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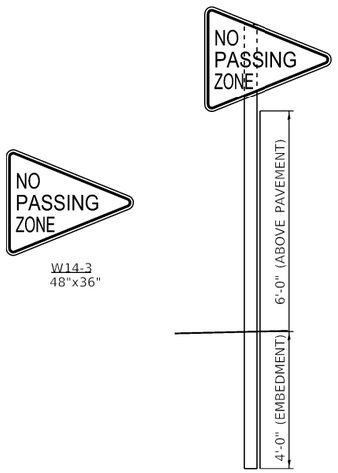
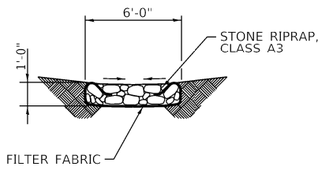


SIGN DETAILS

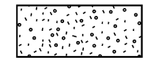
(NOT TO SCALE)



BRIDGE APPROACH PAVEMENT DRAIN DETAIL

PROVIDES DRAINAGE DOWN EMBANKMENT FROM BRIDGE APPROACH PAVEMENT

(NOT TO SCALE)

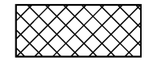


FINAL BACKFILL - 1

LOCATION - EDGE OF TRENCH LOCATED WITHIN 2.0 FT OF A PERMANENT SURFACE, INCLUDING ENTRANCES AND SIDEWALK
PIPE MATERIAL - RIGID, FLEXIBLE
BACKFILL MATERIAL - AGGREGATE
PAYMENT - PAID FOR AS TRENCH BACKFILL

FINAL BACKFILL - 2

LOCATION - EDGE OF TRENCH NOT LOCATED WITHIN 2.0 FT OF A PERMANENT SURFACE, INCLUDING ENTRANCES AND SIDEWALK
PIPE MATERIAL - RIGID, FLEXIBLE
BACKFILL MATERIAL - SUITABLE EXCAVATED MATERIAL, EARTH
PAYMENT - INCLUDED IN THE COST OF PIPE



INITIAL BACKFILL - 1

LOCATION - EDGE OF TRENCH LOCATED WITHIN 2.0 FT OF A PERMANENT SURFACE, INCLUDING ENTRANCES AND SIDEWALK
PIPE MATERIAL - RIGID, FLEXIBLE
BACKFILL MATERIAL - AGGREGATE
PAYMENT - PAID FOR AS TRENCH BACKFILL

INITIAL BACKFILL - 2A

LOCATION - EDGE OF TRENCH NOT LOCATED WITHIN 2.0 FT OF A PERMANENT SURFACE, INCLUDING ENTRANCES AND SIDEWALK
PIPE MATERIAL - RIGID
BACKFILL MATERIAL - SUITABLE EXCAVATED MATERIAL, EARTH
PAYMENT - INCLUDED IN THE COST OF PIPE

INITIAL BACKFILL - 2B

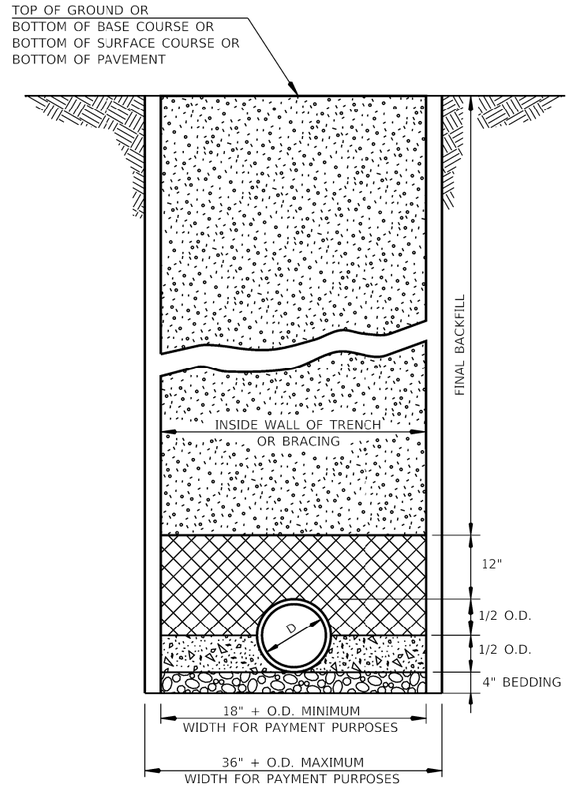
LOCATION - EDGE OF TRENCH NOT LOCATED WITHIN 2.0 FT OF A PERMANENT SURFACE, INCLUDING ENTRANCES AND SIDEWALK
PIPE MATERIAL - FLEXIBLE
BACKFILL MATERIAL - AGGREGATE
PAYMENT - INCLUDED IN THE COST OF PIPE

HAUNCHING

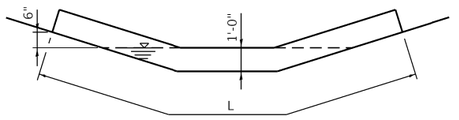
LOCATION - ALL
PIPE MATERIAL - RIGID, FLEXIBLE
BACKFILL MATERIAL - AGGREGATE
PAYMENT - INCLUDED IN THE COST OF PIPE

BEDDING

LOCATION - ALL
PIPE MATERIAL - RIGID, FLEXIBLE
BACKFILL MATERIAL - AGGREGATE
PAYMENT - INCLUDED IN THE COST OF PIPE

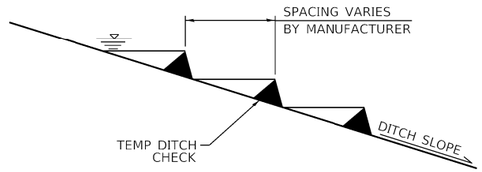


PIPE CULVERT TRENCHING AND BACKFILL DETAIL



TYPICAL TEMPORARY DITCH CHECK SECTION

(NOT TO SCALE)



TYPICAL DITCH CHECK PROFILE

(NOT TO SCALE)

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USER NAME = bchristmarn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	15
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
FILE NAME: H:\1073 Pulaski\Co CH2\2025-PSE Updates\CAD Sheets\0773000_15 ConstDets 7073.dgn

BENCHMARK:

TBM #1: RR Spike in Power Pole
Sta 31+54.04, 23.14' Rt
El 364.03

TBM #2: RR Spike in Power Pole
Sta 34+78.49, 24.01' Rt
El 365.19

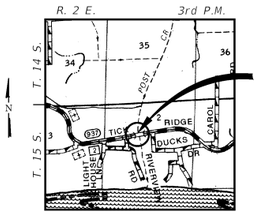
EXISTING STRUCTURE: SN 077-3000

Constructed in 1938, the existing structure consists of three span continuous steel superstructure with concrete deck spanning spill thru concrete abutments on concrete piles and two column concrete piers with tapered legs, one cross beam and spread footings without piles. The existing structure measures 283'-0" back to back of abutments and 25'-4"± out to out of the deck.

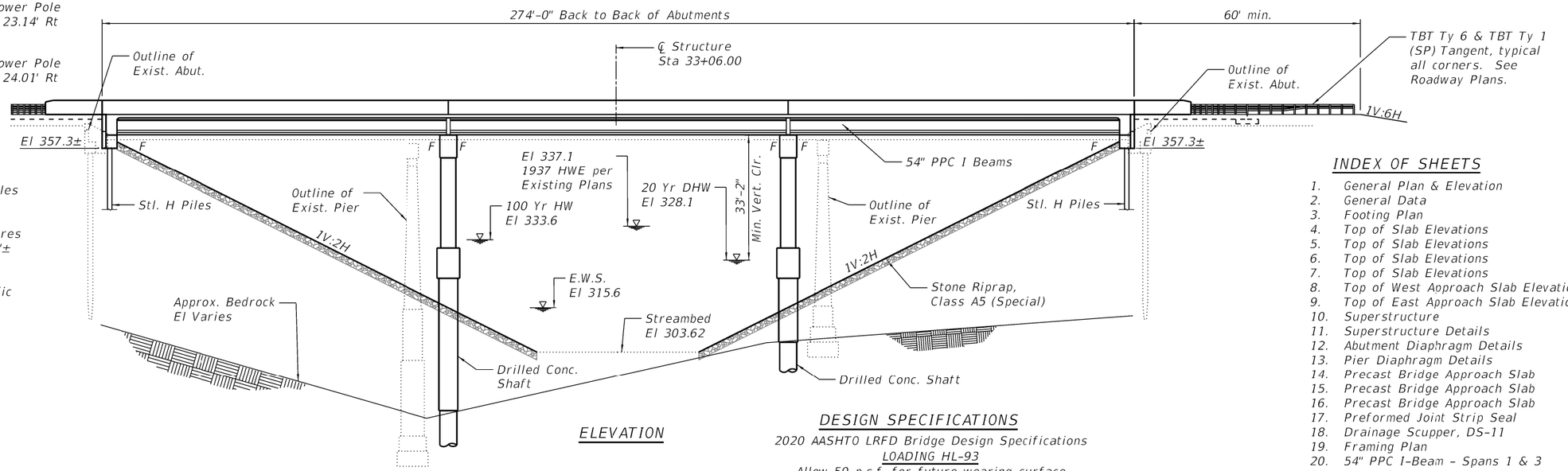
The existing roadway will be closed to traffic during the construction.

SALVAGE:

No salvage.



LOCATION SKETCH



ELEVATION

INDEX OF SHEETS

DESIGN SPECIFICATIONS

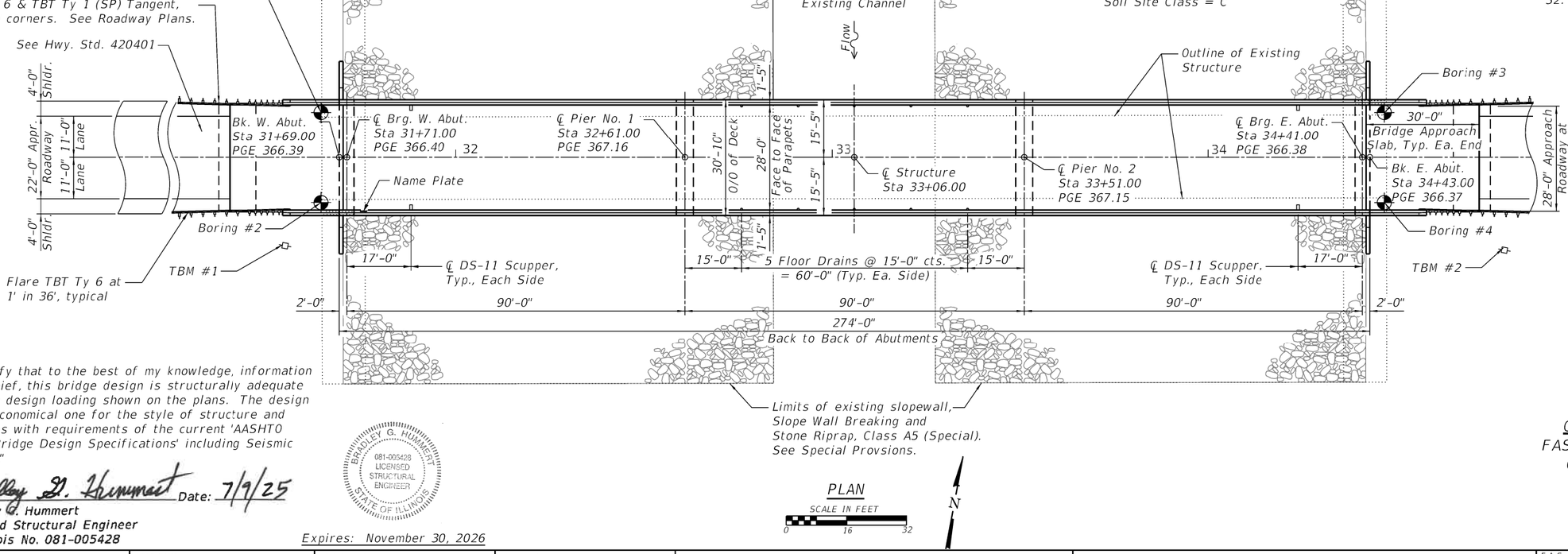
2020 AASHTO LRFD Bridge Design Specifications
LOADING HL-93
Allow 50 p.s.f. for future wearing surface

DESIGN STRESSES

PRECAST PRESTRESSED UNITS		FIELD UNITS	
f'c	= 7,000 psi	f'c	= 3,500 psi
f'ci	= 6,000 psi	f'c	= 4,000 psi (Superstructure Concrete)
f's	= 270,000 psi (½"℄ Strands)	fy	= 60,000 psi (reinf.)
f'si	= 201,960 psi (½"℄ Strands)	fy	= 50,000 psi (M270 Gr. 50)

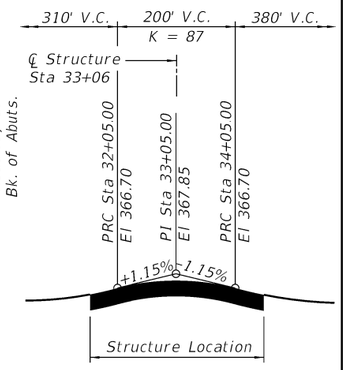
SEISMIC DATA

Seismic Performance Zone (SPZ): 4
Design Spectral Acceleration at 1.0 sec. (S_{D1}): = 0.575 g
Design Spectral Acceleration at 0.2 sec. (S_{DS}): = 1.571 g
Soil Site Class = C



PLAN

SCALE IN FEET
0 16 32



PROFILE GRADE
(Along ℄ FAS 937)

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO LRFD Bridge Design Specifications' including Seismic Design."

Bradley G. Hummert Date: 7/9/25
Bradley G. Hummert
Licensed Structural Engineer
in Illinois No. 081-005428

BRADLEY G. HUMMERT 081-005428 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

Expires: November 30, 2026

GENERAL PLAN & ELEVATION
FAS 937 (CH 2 / TICK RIDGE RD.)
OVER POST CREEK CUT-OFF
SECTION 12-00071-00-BR
PULASKI COUNTY
STATION 33+06.00
STRUCTURE NO. 077-3145

MODEL: Default
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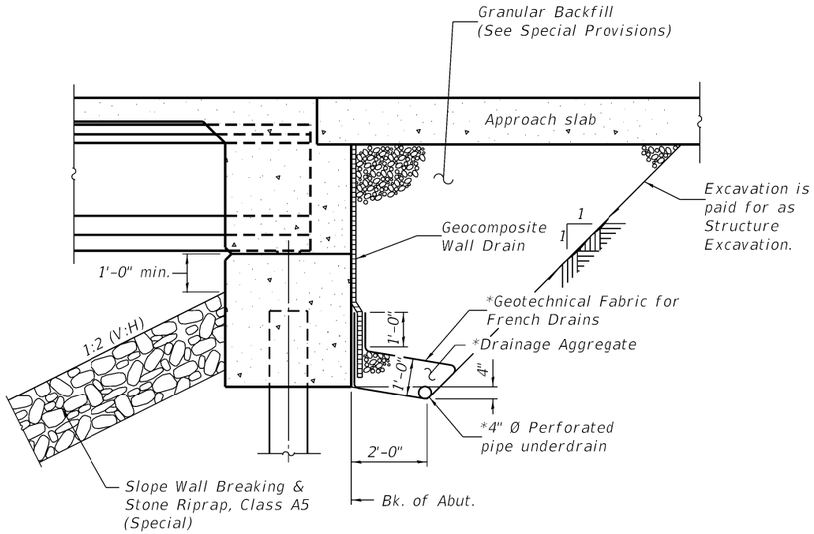
	PLOT SCALE = 32.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION

SCALE: | SHEET 1 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	16
		CONTRACT NO. 99678		
		ILLINOIS FED. AID PROJECT		



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. ℄'s)

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

DESIGN SCOUR ELEVATION TABLE

Event/Limit State	Design Scour Elevations (ft.)				Item 113
	W. Abut.	Pier 1	Pier 2	F. Abut.	
Q100	-----	302.61	306.0±	-----	5
Q200	-----	302.42	306.0±	-----	
Design	357.3	302.61	306.0±	357.3	
Check	357.3	302.42	306.0±	357.3	

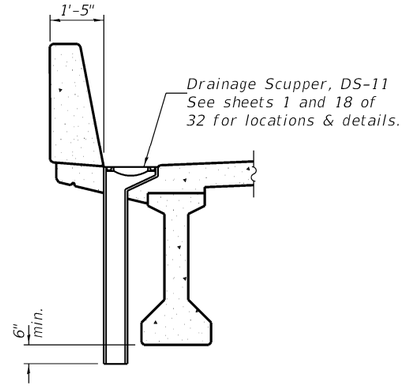
WATERWAY INFORMATION

Drainage Area = 373 Sq. Mi.

Existing Overtopping El = 363.52 at Sta 31+69
Proposed Overtopping El = 366.01 at Sta 34+85

Flood Event	Freq. Yr.	Q C.F.S.	Opening Sq Ft		Nat. H.W.E.	Head - Ft		Headwater El	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	14,300	1912	1847	325.4	0	0.1	325.4	325.5
Design	20	16,370	2253	2180	328.1	0.1	0.1	328.2	328.2
Base	100	22,000	3070	2980	333.6	0.1	0.1	333.7	333.7
Scour Design Check	200	23,430	3200	3106	334.4	0.1	0.1	334.5	334.5
Overtopping	N/A								
Max. Calc.	500	27,700	3412	3312	335.5	0.1	0.1	335.6	335.6

Note:
Elevations include an assumed backwater from the Ohio River.



DRAINAGE SCUPPER SECTION

POST CREEK CUT-OFF
BUILT 202 BY
PULASKI COUNTY
SEC. 12-00071-00-BR
PROJ. NO. 1 FDA (058)
FAS RTE 937 STA 33+06
S.N. 077-3145 LOADING HL93

NAME PLATE

See Std. 515001

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
3. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
4. Slipforming of the parapets is not allowed.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Removal of Existing Structures	Each	---	---	1
	Structure Excavation	Cu Yd	---	162	162
	Floor Drains	Each	10	---	10
	Concrete Structures	Cu Yd	---	349.9	349.9
	Concrete Superstructure	Cu Yd	302.8	---	302.8
	Bridge Deck Grooving	Sq Yd	960	---	960
**	Protective Coat	Sq Yd	1,314	---	1,314
	Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54 In.	Foot	1,077.0	---	1,077.0
	Reinforcement Bars	Pound	---	50,530	50,530
	Reinforcement Bars, Epoxy Coated	Pound	105,720	81,360	187,080
	Mechanical Splicers	Each	---	348	348
	Furnishing Steel Piles HP14x89	Foot	---	564	564
	Driving Piles	Foot	---	564	564
	Test Pile Steel HP14x89	Each	---	2	2
	Pile Shoes	Each	---	14	14
	Name Plates	Each	---	---	1
	Permanent Casing	Foot	---	167	167
	Drilled Shaft in Soil	Cu Yd	---	122.0	122.0
	Drilled Shaft in Rock	Cu Yd	---	49.4	49.4
	Preformed Joint Strip Seal	Foot	58.0	---	58.0
	Granular Backfill for Structures	Cu Yd	---	110	110
	Geocomposite Wall Drain	Sq Yd	---	79	79
	Pipe Underdrains for Structures 4"	Foot	---	135	135
	Crosshole Sonic Logging Access Ducts	Foot	---	1,008	1,008
	Crosshole Sonic Logging Testing	Each	---	6	6
	Stone Riprap, Class A5 (Special)	Sq Yd	---	3,393	3,393
	Concrete Wearing Surface, 5"	Sq Yd	200	---	200
	Precast Bridge Approach Slab	Sq Ft	1,690	---	1,690
	Slope Wall Breaking	Sq Yd	---	3,393	3,393
	Drainage Scuppers, DS-11	Each	4	---	4

** Quantity includes top of concrete surface of bridge deck and approach slabs end to end and the top and inside vertical faces of the parapets and curbs.

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USER NAME = bchristmann
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DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 077-3145

SCALE: | SHEET 2 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	17
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

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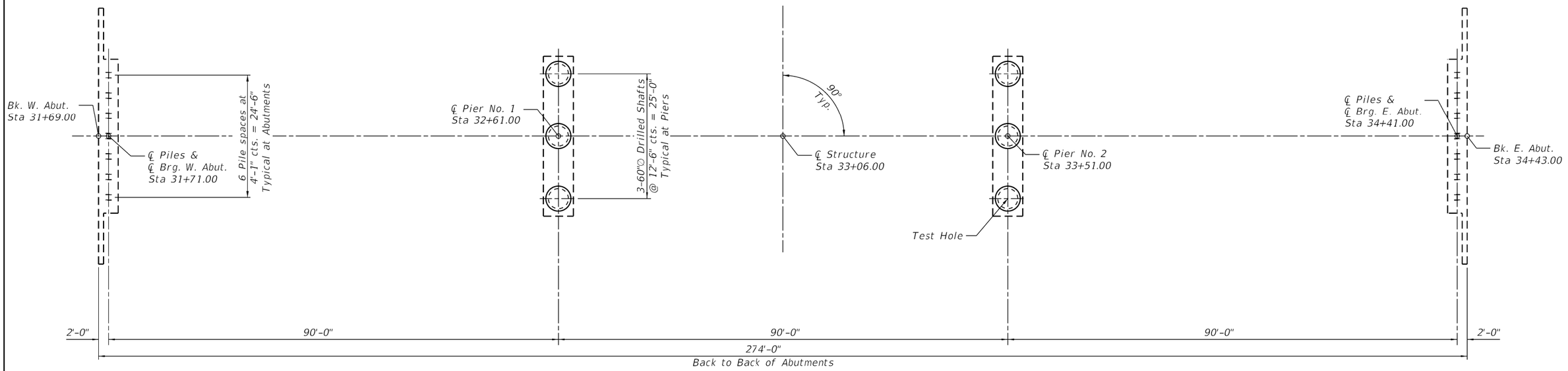

FOOTING PLAN

N

MODEL: Default
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			DRAWN -	REVISED -	
		PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
		PLOT DATE = 10/7/2025	DATE -	REVISED -	

FOOTING PLAN
STRUCTURE NO. 077–3145

SCALE: | SHEET 3 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	18
		CONTRACT NO. 99678		
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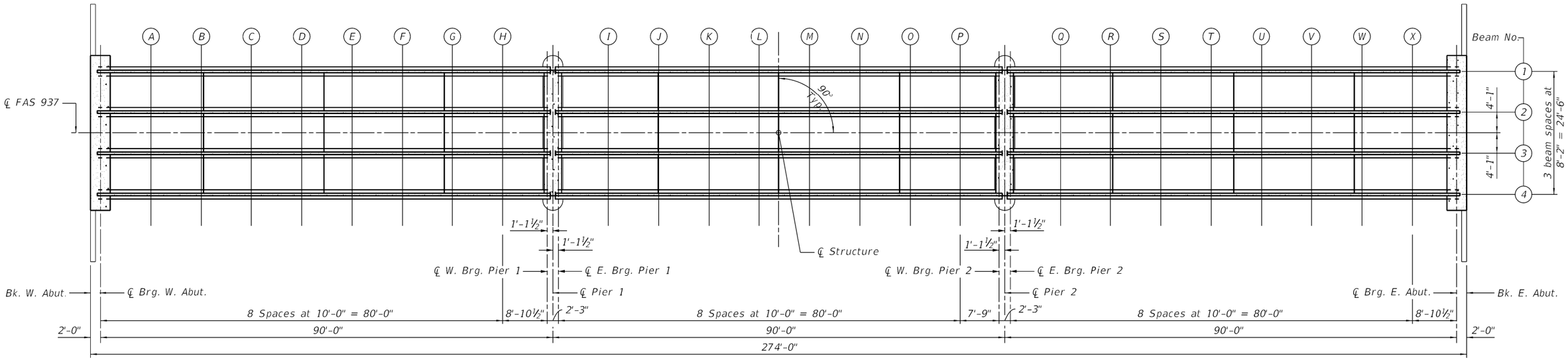

PLAN

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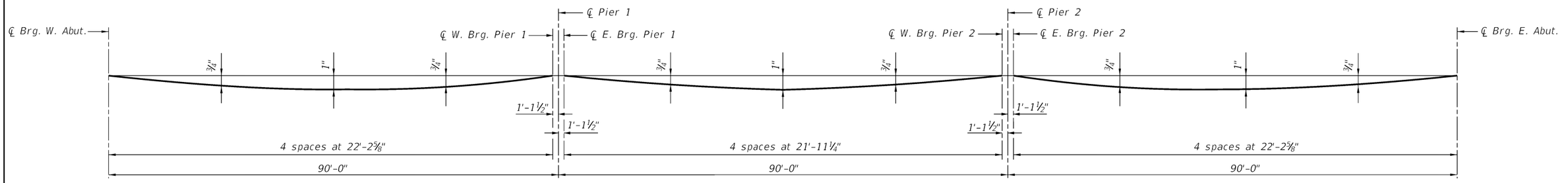

DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete oniy, exclusive of beam weight.)

Note:
The above deflections are nct to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections shown on sheets 5 thru 7.

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USER NAME = bchristmarn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 077-3145

SCALE: | SHEET 4 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	19
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

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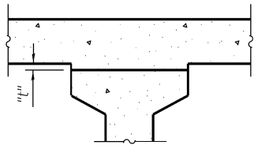

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

NORTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	-14.00	366.15	366.15
CL Brg West Abut	31+71.00	-14.00	366.17	366.17
A	31+81.00	-14.00	366.24	366.26
B	31+91.00	-14.00	366.32	366.37
C	32+01.00	-14.00	366.42	366.49
D	32+11.00	-14.00	366.53	366.62
E	32+21.00	-14.00	366.64	366.72
F	32+31.00	-14.00	366.73	366.80
G	32+41.00	-14.00	366.81	366.86
H	32+51.00	-14.00	366.87	366.90
CL W. Brg Pier 1	32+59.88	-14.00	366.92	366.92
CL Pier 1	32+61.00	-14.00	366.93	366.93
CL E. Brg Pier 1	32+62.13	-14.00	366.94	366.94
!	32+72.13	-14.00	366.98	367.01
J	32+82.13	-14.00	367.01	367.07
K	32+92.13	-14.00	367.03	367.10
L	33+02.13	-14.00	367.04	367.12
M	33+12.13	-14.00	367.04	367.12
N	33+22.13	-14.00	367.02	367.10
O	33+32.13	-14.00	367.00	367.05
P	33+42.13	-14.00	366.96	366.99
CL W. Brg Pier 2	33+49.88	-14.00	366.93	366.93
CL Pier 2	33+51.00	-14.00	366.92	366.92
CL E. Brg Pier 2	33+52.13	-14.00	366.91	366.91
Q	33+62.13	-14.00	366.85	366.88
R	33+72.13	-14.00	366.78	366.84
S	33+82.13	-14.00	366.70	366.77
T	33+92.13	-14.00	366.61	366.69
U	34+02.13	-14.00	366.50	366.58
V	34+12.13	-14.00	366.39	366.46
W	34+22.13	-14.00	366.29	366.35
X	34+32.13	-14.00	366.21	366.24
CL Brg East Abut	34+41.00	-14.00	366.15	366.15
Bk East Abut	34+43.00	-14.00	366.13	366.13

BEAM NO. 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	-12.25	366.19	366.19
CL Brg West Abut	31+71.00	-12.25	366.20	366.20
A	31+81.00	-12.25	366.27	366.30
B	31+91.00	-12.25	366.36	366.41
C	32+01.00	-12.25	366.46	366.53
D	32+11.00	-12.25	366.57	366.65
E	32+21.00	-12.25	366.67	366.75
F	32+31.00	-12.25	366.76	366.84
G	32+41.00	-12.25	366.84	366.90
H	32+51.00	-12.25	366.91	366.94
CL W. Brg Pier 1	32+59.88	-12.25	366.96	366.96
CL Pier 1	32+61.00	-12.25	366.97	366.97
CL E. Brg Pier 1	32+62.13	-12.25	366.97	366.97
I	32+72.13	-12.25	367.02	367.04
J	32+82.13	-12.25	367.05	367.10
K	32+92.13	-12.25	367.07	367.14
L	33+02.13	-12.25	367.08	367.16
M	33+12.13	-12.25	367.07	367.16
N	33+22.13	-12.25	367.06	367.13
O	33+32.13	-12.25	367.04	367.09
P	33+42.13	-12.25	367.00	367.03
CL W. Brg Pier 2	33+49.88	-12.25	366.96	366.96
CL Pier 2	33+51.00	-12.25	366.96	366.96
CL E. Brg Pier 2	33+52.13	-12.25	366.95	366.95
Q	33+62.13	-12.25	366.89	366.92
R	33+72.13	-12.25	366.82	366.87
S	33+82.13	-12.25	366.74	366.81
T	33+92.13	-12.25	366.64	366.72
U	34+02.13	-12.25	366.54	366.62
V	34+12.13	-12.25	366.43	366.50
W	34+22.13	-12.25	366.33	366.38
X	34+32.13	-12.25	366.25	366.27
CL Brg East Abut	34+41.00	-12.25	366.18	366.18
Bk East Abut	34+43.00	-12.25	366.17	366.17

BEAM NO. 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	-4.08	366.32	366.32
CL Brg West Abut	31+71.00	-4.08	366.34	366.34
A	31+81.00	-4.08	366.41	366.43
B	31+91.00	-4.08	366.49	366.55
C	32+01.00	-4.08	366.59	366.66
D	32+11.00	-4.08	366.70	366.79
E	32+21.00	-4.08	366.81	366.89
F	32+31.00	-4.08	366.90	366.97
G	32+41.00	-4.08	366.98	367.03
H	32+51.00	-4.08	367.04	367.07
CL W. Brg Pier 1	32+59.88	-4.08	367.09	367.09
CL Pier 1	32+61.00	-4.08	367.10	367.10
CL E. Brg Pier 1	32+62.13	-4.08	367.11	367.11
I	32+72.13	-4.08	367.15	367.18
J	32+82.13	-4.08	367.18	367.24
K	32+92.13	-4.08	367.20	367.27
L	33+02.13	-4.08	367.21	367.29
M	33+12.13	-4.08	367.21	367.29
N	33+22.13	-4.08	367.20	367.27
O	33+32.13	-4.08	367.17	367.22
P	33+42.13	-4.08	367.13	367.16
CL W. Brg Pier 2	33+49.88	-4.08	367.10	367.10
CL Pier 2	33+51.00	-4.08	367.09	367.09
CL E. Brg Pier 2	33+52.13	-4.08	367.08	367.08
Q	33+62.13	-4.08	367.02	367.05
R	33+72.13	-4.08	366.95	367.01
S	33+82.13	-4.08	366.87	366.94
T	33+92.13	-4.08	366.78	366.86
U	34+02.13	-4.08	366.67	366.75
V	34+12.13	-4.08	366.56	366.63
W	34+22.13	-4.08	366.46	366.52
X	34+32.13	-4.08	366.38	366.41
CL Brg East Abut	34+41.00	-4.08	366.32	366.32
Bk East Abut	34+43.00	-4.08	366.31	366.31

Notes:
1. Elevations are at Top of Concrete.
2. See Sheet 4 for elevation locations.

E-S

2-17-2017

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmarn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/7/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 077-3145

SCALE: | SHEET 5 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	20
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

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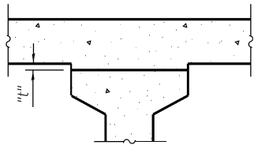

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

℄ ROADWAY & PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	0.00	366.39	366.39
CL Brg West Abut	31+71.00	0.00	366.40	366.40
A	31+81.00	0.00	366.47	366.50
B	31+91.00	0.00	366.56	366.61
C	32+01.00	0.00	366.66	366.73
D	32+11.00	0.00	366.77	366.85
E	32+21.00	0.00	366.87	366.95
F	32+31.00	0.00	366.96	367.03
G	32+41.00	0.00	367.04	367.09
H	32+51.00	0.00	367.11	367.14
CL W. Brg Pier 1	32+59.88	0.00	367.16	367.16
CL Pier 1	32+61.00	0.00	367.16	367.16
CL E. Brg Pier 1	32+62.13	0.00	367.17	367.17
I	32+72.13	0.00	367.21	367.24
J	32+82.13	0.00	367.25	367.30
K	32+92.13	0.00	367.27	367.34
L	33+02.13	0.00	367.28	367.36
M	33+12.13	0.00	367.27	367.35
N	33+22.13	0.00	367.26	367.33
O	33+32.13	0.00	367.23	367.29
P	33+42.13	0.00	367.20	367.23
CL W. Brg Pier 2	33+49.88	0.00	367.16	367.16
CL Pier 2	33+51.00	0.00	367.15	367.15
CL E. Brg Pier 2	33+52.13	0.00	367.15	367.15
Q	33+62.13	0.00	367.09	367.12
R	33+72.13	0.00	367.02	367.07
S	33+82.13	0.00	366.93	367.01
T	33+92.13	0.00	366.84	366.92
U	34+02.13	0.00	366.73	366.82
V	34+12.13	0.00	366.62	366.70
W	34+22.13	0.00	366.53	366.58
X	34+32.13	0.00	366.44	366.47
CL Brg East Abut	34+41.00	0.00	366.38	366.38
Bk East Abut	34+43.00	0.00	366.37	366.37

BEAM NO. 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	4.08	366.32	366.32
CL Brg West Abut	31+71.00	4.08	366.34	366.34
A	31+81.00	4.08	366.41	366.43
B	31+91.00	4.08	366.49	366.55
C	32+01.00	4.08	366.59	366.66
D	32+11.00	4.08	366.70	366.79
E	32+21.00	4.08	366.81	366.89
F	32+31.00	4.08	366.90	366.97
G	32+41.00	4.08	366.98	367.03
H	32+51.00	4.08	367.04	367.07
CL W. Brg Pier 1	32+59.88	4.08	367.09	367.09
CL Pier 1	32+61.00	4.08	367.10	367.10
CL E. Brg Pier 1	32+62.13	4.08	367.11	367.11
I	32+72.13	4.08	367.15	367.18
J	32+82.13	4.08	367.18	367.24
K	32+92.13	4.08	367.20	367.27
L	33+02.13	4.08	367.21	367.29
M	33+12.13	4.08	367.21	367.29
N	33+22.13	4.08	367.20	367.27
O	33+32.13	4.08	367.17	367.22
P	33+42.13	4.08	367.13	367.16
CL W. Brg Pier 2	33+49.88	4.08	367.10	367.10
CL Pier 2	33+51.00	4.08	367.09	367.09
CL E. Brg Pier 2	33+52.13	4.08	367.08	367.08
Q	33+62.13	4.08	367.02	367.05
R	33+72.13	4.08	366.95	367.01
S	33+82.13	4.08	366.87	366.94
T	33+92.13	4.08	366.78	366.86
U	34+02.13	4.08	366.67	366.75
V	34+12.13	4.08	366.56	366.63
W	34+22.13	4.08	366.46	366.52
X	34+32.13	4.08	366.38	366.41
CL Brg East Abut	34+41.00	4.08	366.32	366.32
Bk East Abut	34+43.00	4.08	366.31	366.31

Notes:
1. Elevations are at Top of Concrete.
2. See Sheet 4 for elevation locations.

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2-17-2017

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmarn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/7/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 077-3145

SCALE: | SHEET 6 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	21
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

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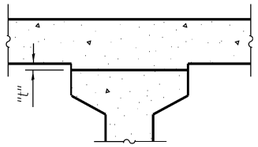

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

BEAM NO. 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	12.25	366.19	366.19
CL Brg West Abut	31+71.00	12.25	366.20	366.20
A	31+81.00	12.25	366.27	366.30
B	31+91.00	12.25	366.36	366.41
C	32+01.00	12.25	366.46	366.53
D	32+11.00	12.25	366.57	366.65
E	32+21.00	12.25	366.67	366.75
F	32+31.00	12.25	366.76	366.84
G	32+41.00	12.25	366.84	366.90
H	32+51.00	12.25	366.91	366.94
CL W. Brg Pier 1	32+59.88	12.25	366.96	366.96
CL Pier 1	32+61.00	12.25	366.97	366.97
CL E. Brg Pier 1	32+62.13	12.25	366.97	366.97
I	32+72.13	12.25	367.02	367.04
J	32+82.13	12.25	367.05	367.10
K	32+92.13	12.25	367.07	367.14
L	33+02.13	12.25	367.08	367.16
M	33+12.13	12.25	367.07	367.16
N	33+22.13	12.25	367.06	367.13
O	33+32.13	12.25	367.04	367.09
P	33+42.13	12.25	367.00	367.03
CL W. Brg Pier 2	33+49.88	12.25	366.96	366.96
CL Pier 2	33+51.00	12.25	366.96	366.96
CL E. Brg Pier 2	33+52.13	12.25	366.95	366.95
Q	33+62.13	12.25	366.89	366.92
R	33+72.13	12.25	366.82	366.87
S	33+82.13	12.25	366.74	366.81
T	33+92.13	12.25	366.64	366.72
U	34+02.13	12.25	366.54	366.62
V	34+12.13	12.25	366.43	366.50
W	34+22.13	12.25	366.33	366.38
X	34+32.13	12.25	366.25	366.27
CL Brg East Abut	34+41.00	12.25	366.18	366.18
Bk East Abut	34+43.00	12.25	366.17	366.17

SOUTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk West Abut	31+69.00	14.00	366.15	366.15
CL Brg West Abut	31+71.00	14.00	366.17	366.17
A	31+81.00	14.00	366.24	366.26
B	31+91.00	14.00	366.32	366.37
C	32+01.00	14.00	366.42	366.49
D	32+11.00	14.00	366.53	366.62
E	32+21.00	14.00	366.64	366.72
F	32+31.00	14.00	366.73	366.80
G	32+41.00	14.00	366.81	366.86
H	32+51.00	14.00	366.87	366.90
CL W. Brg Pier 1	32+59.88	14.00	366.92	366.92
CL Pier 1	32+61.00	14.00	366.93	366.93
CL E. Brg Pier 1	32+62.13	14.00	366.94	366.94
I	32+72.13	14.00	366.98	367.01
J	32+82.13	14.00	367.01	367.07
K	32+92.13	14.00	367.03	367.10
L	33+02.13	14.00	367.04	367.12
M	33+12.13	14.00	367.04	367.12
N	33+22.13	14.00	367.02	367.10
O	33+32.13	14.00	367.00	367.05
P	33+42.13	14.00	366.96	366.99
CL W. Brg Pier 2	33+49.88	14.00	366.93	366.93
CL Pier 2	33+51.00	14.00	366.92	366.92
CL E. Brg Pier 2	33+52.13	14.00	366.91	366.91
Q	33+62.13	14.00	366.85	366.88
R	33+72.13	14.00	366.78	366.84
S	33+82.13	14.00	366.70	366.77
T	33+92.13	14.00	366.61	366.69
U	34+02.13	14.00	366.50	366.58
V	34+12.13	14.00	366.39	366.46
W	34+22.13	14.00	366.29	366.35
X	34+32.13	14.00	366.21	366.24
CL Brg East Abut	34+41.00	14.00	366.15	366.15
Bk East Abut	34+43.00	14.00	366.13	366.13

Notes:
1. Elevations are at Top of Concrete.
2. See Sheet 4 for elevation locations.

E-S

2-17-2017

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmarn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/7/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 077-3145

SCALE: | SHEET 7 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	22
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

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NORTH CURB LINE

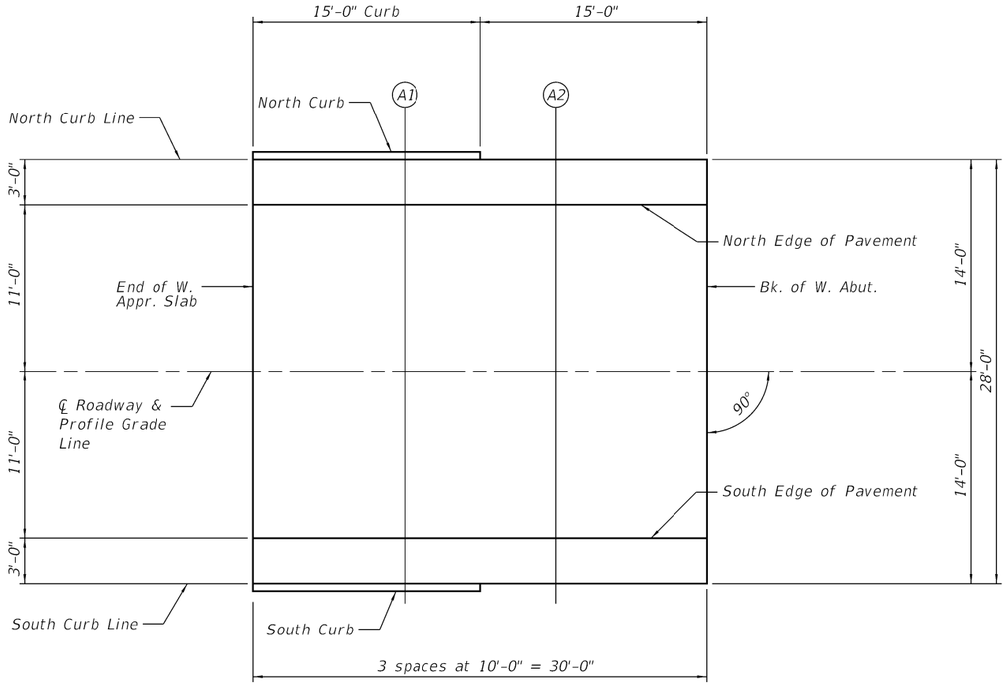
Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Pav't.	31+40.00	-14.00	366.05
A1	31+50.00	-14.00	366.07
A2	31+60.00	-14.00	366.11
E. End of West Appr. Pav't.	31+70.00	-14.00	366.16

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Pav't.	31+40.00	-11.00	366.11
A1	31+50.00	-11.00	366.13
A2	31+60.00	-11.00	366.17
E. End of West Appr. Pav't.	31+70.00	-11.00	366.22

℄ ROADWAY & PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Pav't.	31+40.00	0.00	366.28
A1	31+50.00	0.00	366.30
A2	31+60.00	0.00	366.34
E. End of West Appr. Pav't.	31+70.00	0.00	366.39



WEST APPROACH PLAN

N

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Pav't.	31+40.00	-11.00	366.11
A1	31+50.00	-11.00	366.13
A2	31+60.00	-11.00	366.17
E. End of West Appr. Pav't.	31+70.00	-11.00	366.22

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Pav't.	31+40.00	-14.00	366.05
A1	31+50.00	-14.00	366.07
A2	31+60.00	-14.00	366.11
E. End of West Appr. Pav't.	31+70.00	-14.00	366.16

E-AS

2-17-2017

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HMG ENGINEERS, INC.
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BREESE, ILLINOIS 62230
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PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 077-3145

SCALE: | SHEET 8 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	23
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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NORTH CURB LINE

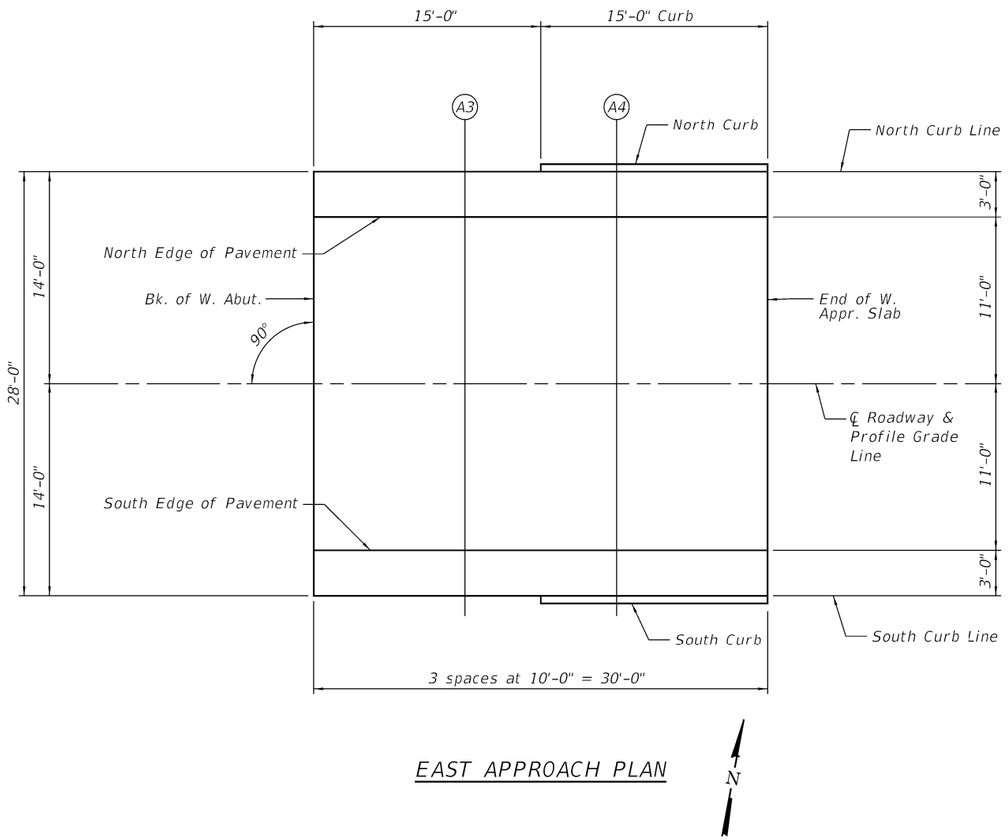
Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Pav't.	34+42.00	-14.00	366.14
A3	34+52.00	-14.00	366.09
A4	34+62.00	-14.00	366.05
E. End of East Appr. Pav't.	34+72.00	-14.00	366.02

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Pav't.	34+42.00	-11.00	366.20
A3	34+52.00	-11.00	366.15
A4	34+62.00	-11.00	366.11
E. End of East Appr. Pav't.	34+72.00	-11.00	366.08

℄ ROADWAY & PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Pav't.	34+42.00	0.00	366.37
A3	34+52.00	0.00	366.32
A4	34+62.00	0.00	366.28
E. End of East Appr. Pav't.	34+72.00	0.00	366.25



EAST APPROACH PLAN

N

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Pav't.	34+42.00	-11.00	366.20
A3	34+52.00	-11.00	366.15
A4	34+62.00	-11.00	366.11
E. End of East Appr. Pav't.	34+72.00	-11.00	366.08

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Pav't.	34+42.00	-14.00	366.14
A3	34+52.00	-14.00	366.09
A4	34+62.00	-14.00	366.05
E. End of East Appr. Pav't.	34+72.00	-14.00	366.02

E-AS

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PLOT DATE = 10/7/2025	DATE -	REVISED -

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DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 077-3145

SCALE: | SHEET 9 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

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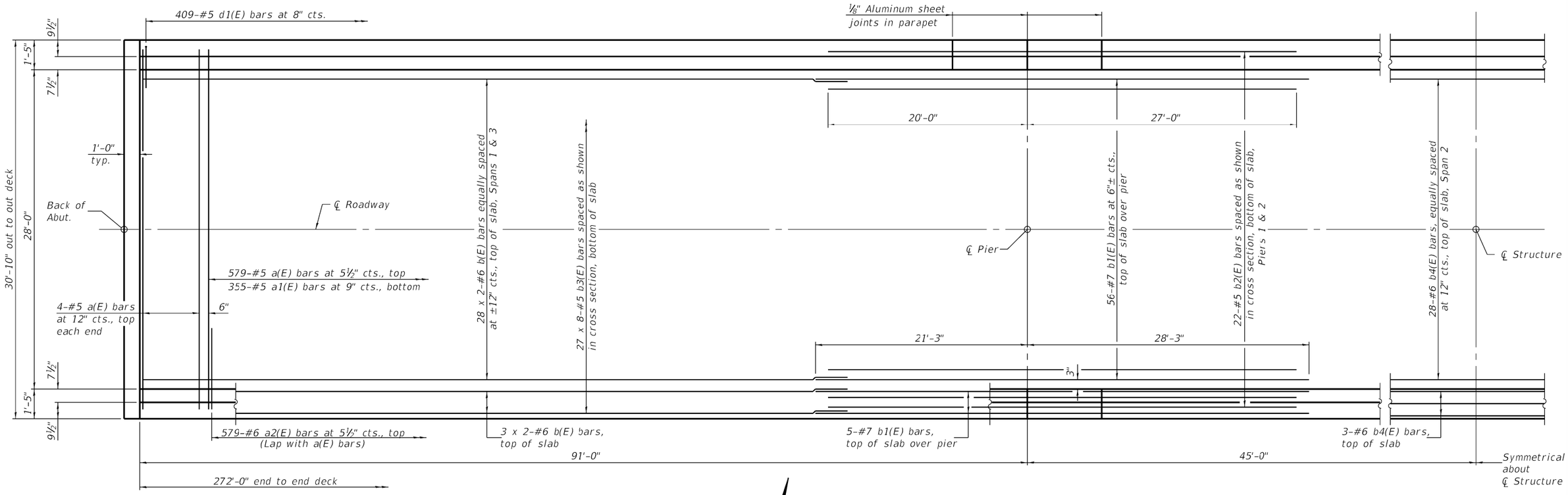
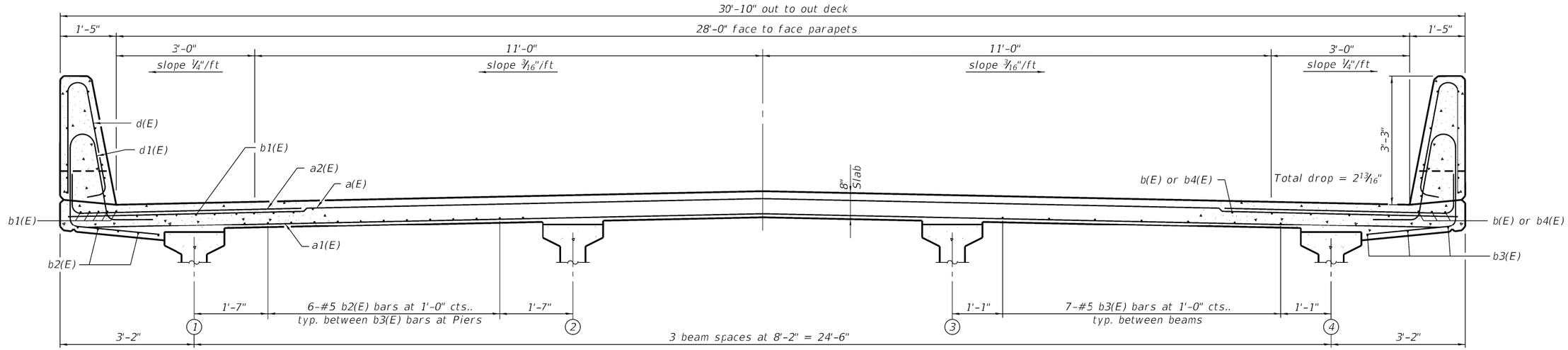


PARTIAL PLAN

Notes:
See sheet 11 of 32 for superstructure details and Bill of Material.
Bars indicated thus 29 x 2-#6 etc. indicates 29 lines of bars with 2 lengths per line.

MINIMUM BAR LAP



NEAR PIER — CROSS SECTION (Looking East) — NEAR MIDSPAN

SI-13654-2-0 6-15-2019

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SUPERSTRUCTURE
STRUCTURE NO. 077-3145

SCALE: | SHEET 10 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	25
		CONTRACT NO. 99678		
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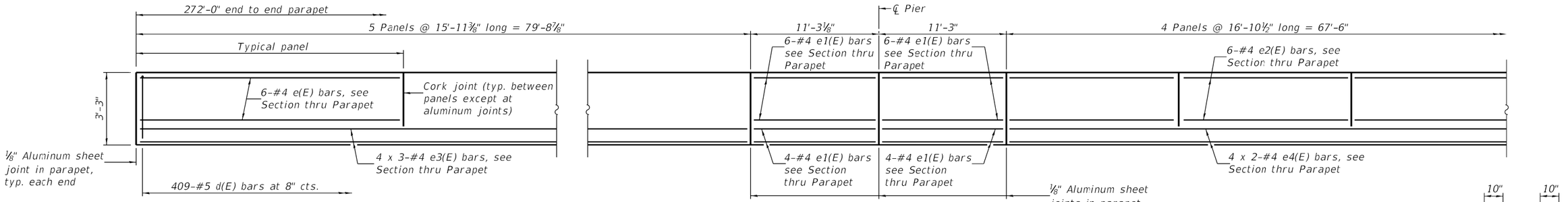
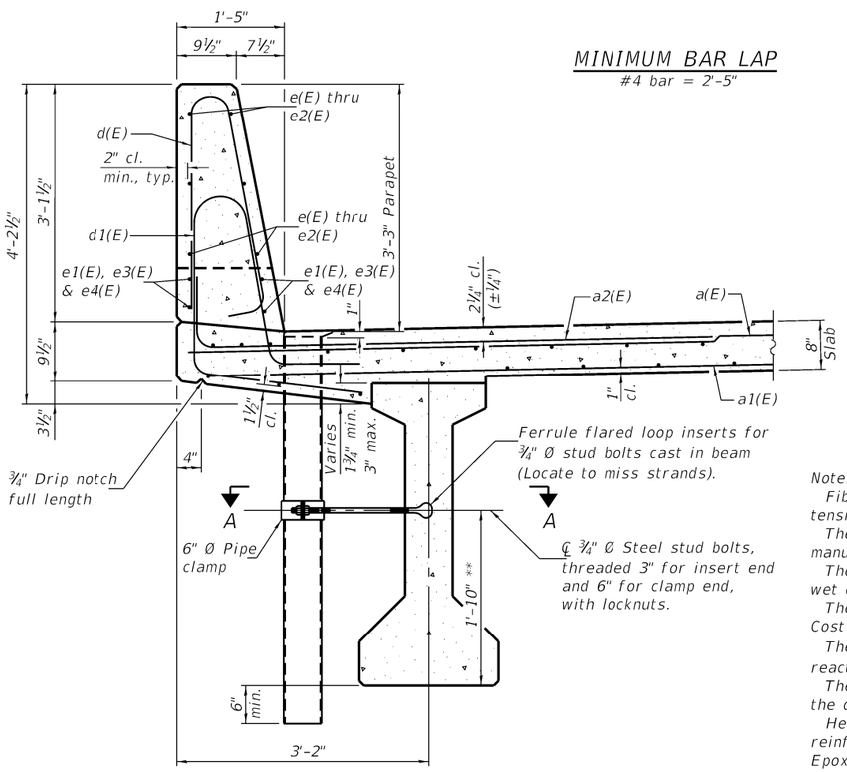


INSIDE ELEVATION OF PARAPET

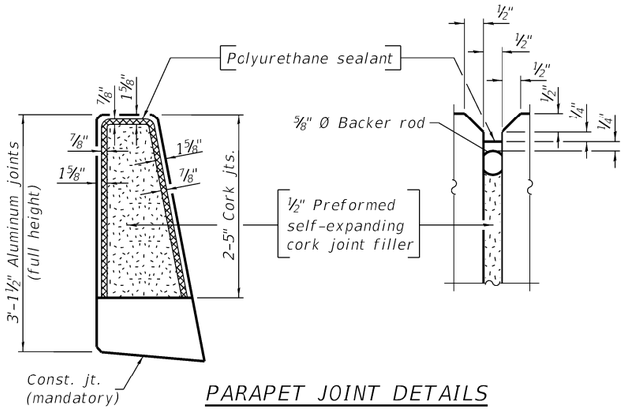


MINIMUM BAR LAP

#4 bar = 2'-5"

SECTION THRU PARAPET

**For insert locations, see sheet 1 of 32.



PARAPET JOINT DETAILS

Notes:

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

The exterior surfaces of the fiberglass floor drains shall be pigmented by the manufacturer with a color that matches the concrete.

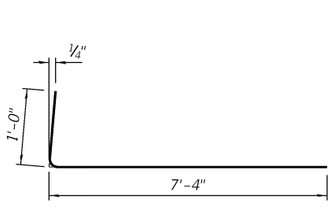
The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.

The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.

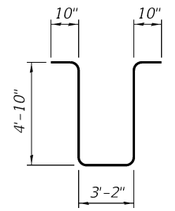
The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

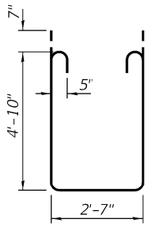
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.



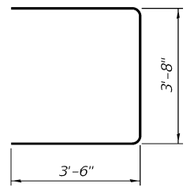
BAR a2(E)



BARS s20(E)



BAR s11(E)

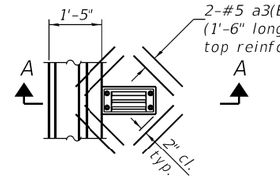


BARS s10(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	587	#5	30'-6"	
a1(E)	355	#5	28'-10"	
a2(E)	1,158	#6	8'-4"	
a3(E)	32	#5	1'-6"	
b(E)	136	#6	37'-11"	
b1(E)	132	#7	49'-6"	
b2(E)	44	#5	47'-0"	
b3(E)	216	#5	37'-1"	
b4(E)	34	#6	41'-6"	
d(E)	818	#5	6'-5"	
d1(E)	818	#5	8'-1"	
e(E)	120	#4	15'-7"	
e1(E)	80	#4	10'-11"	
e2(E)	48	#4	16'-6"	
e3(E)	48	#4	28'-2"	
e4(E)	16	#4	35'-0"	
m10(E)	12	#6	30'-6"	
m11(E)	24	#6	7'-4"	
m12(E)	16	#6	2'-7"	
m13(E)	6	#6	6'-0"	
m14(E)	4	#6	1'-11"	
m15(E)	16	#5	4'-0"	
m20(E)	12	#6	6'-0"	
m21(E)	48	#6	7'-4"	
m22(E)	16	#5	4'-0"	
s10(E)	50	#5	10'-8"	
s11(E)	50	#5	13'-5"	
s20(E)	42	#5	14'-6"	
Reinforcement Bars, Epoxy Coated		Lbs.	97,240	
Concrete Superstructure		Cu Yd	295.0	
Floor Drains		Each	10	

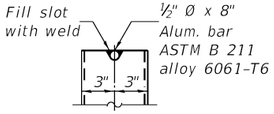
Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.



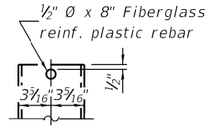
DRAINAGE SCUPPER PLAN

Note:

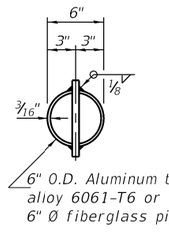
Cut longitudinal reinforcement to clear drainage scuppers.



ALUMINUM TUBE

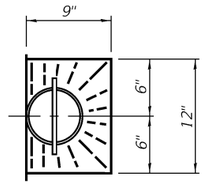


FIBERGLASS PIPE

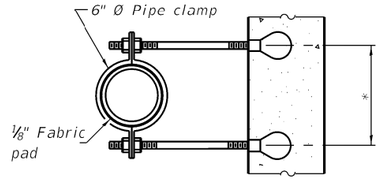


TOP PLAN

(Showing aluminum tube)

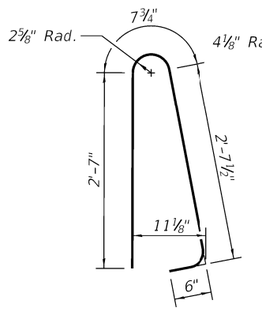


TOP PLAN

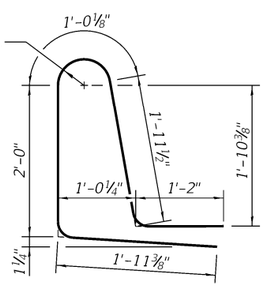


SECTION A-A

*Dimension as required by pipe clamp



BAR d(E)



BAR d1(E)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 077-3145

SCALE: | SHEET 11 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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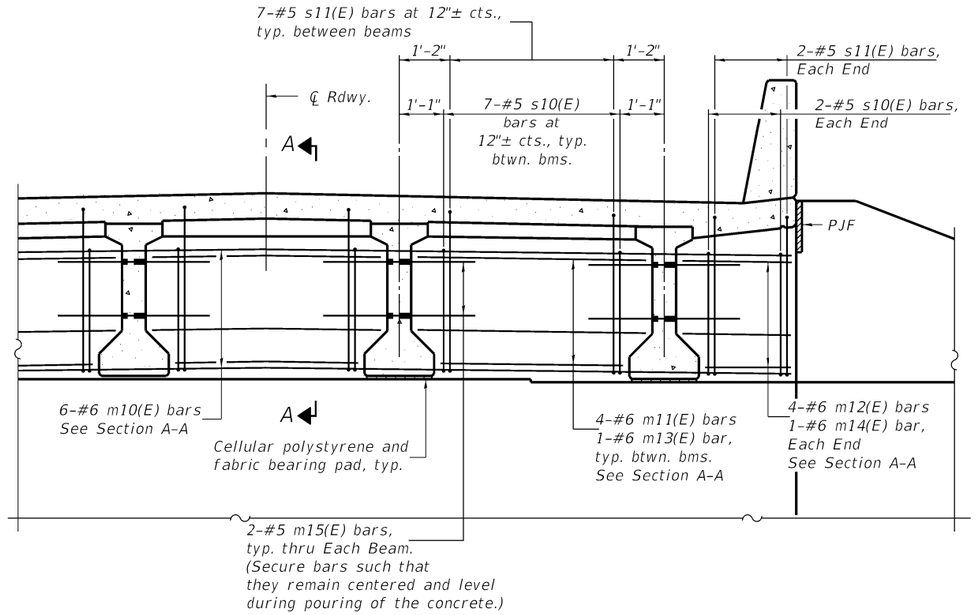
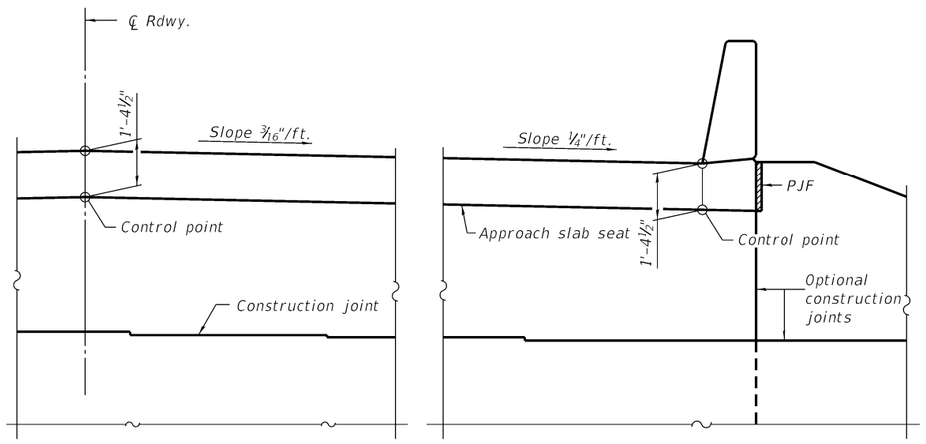
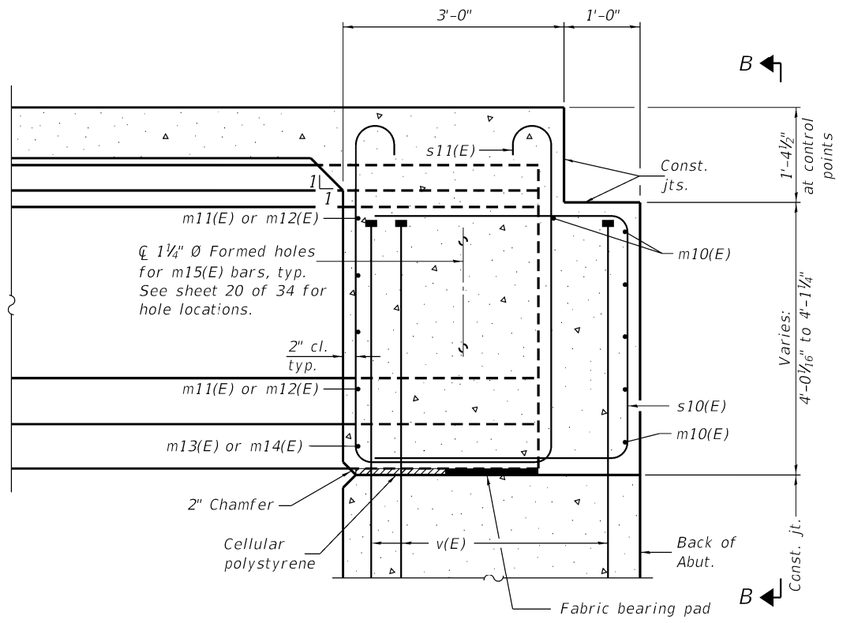
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	



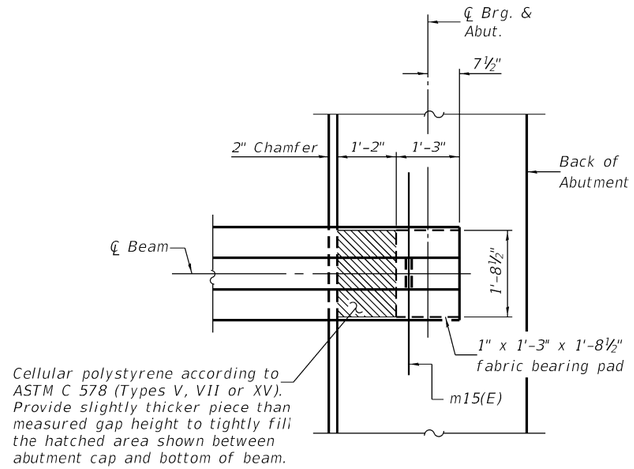
DIAPHRAGM AT ABUTMENT



VIEW B-B



SECTION A-A



PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:

See sheet 11 of 32 for superstructure details and Bill of Material.

See sheet 17 of 32 for PJF details.

The approach slab seat shall have a constant slope determined from the control points shown.

Cost of cellular polystyrene is included with Concrete Superstructure.

DIA-I4854-0 6-15-2019

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ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 077-3145

SCALE: | SHEET 12 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 99678		
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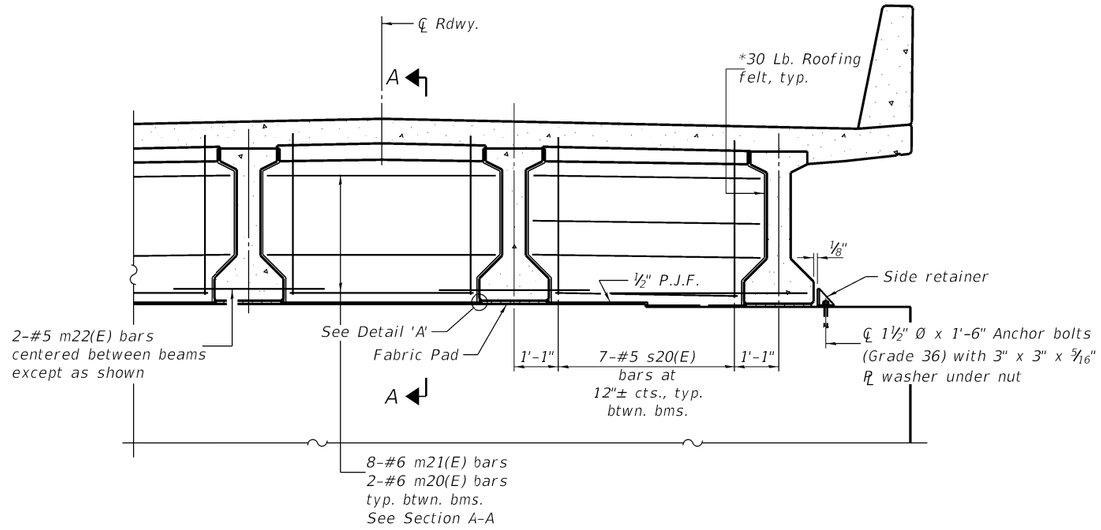
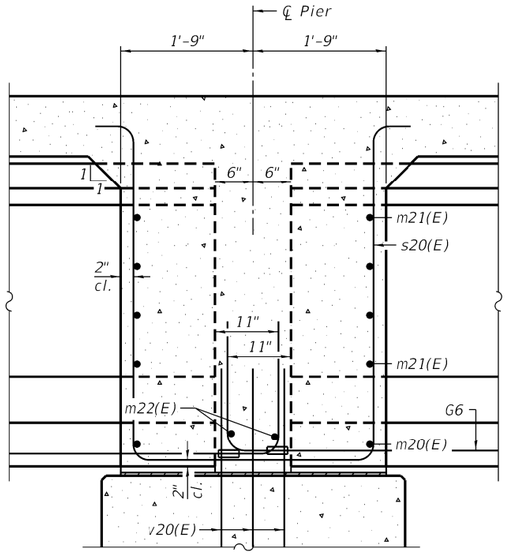


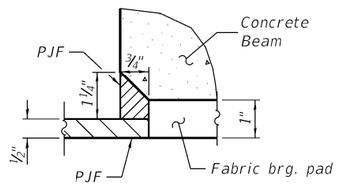
DIAPHRAGM AT PIER

(Looking East)

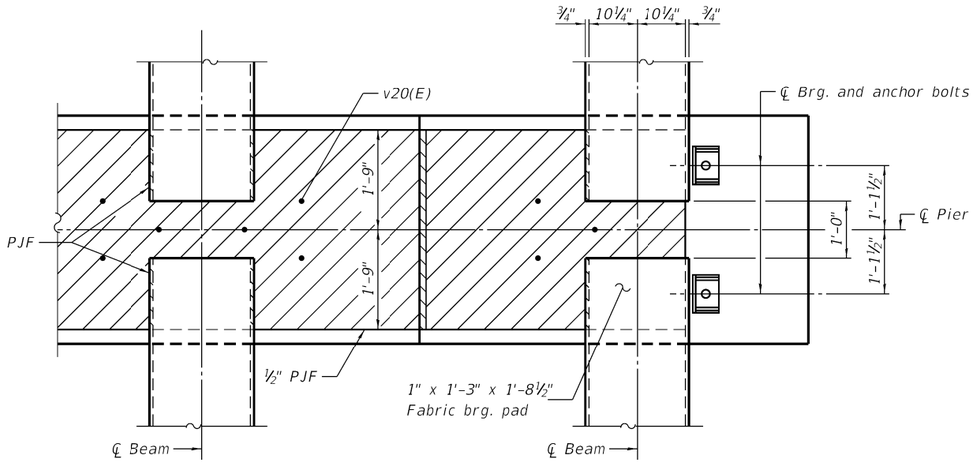
*Bonded to sides of beams embedded into diaphragm.



SECTION A-A

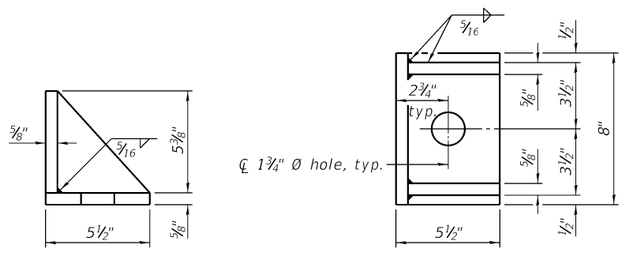


DETAIL 'A'



PLAN AT PIER

(Showing bearing pads and PJF details)



SIDE RETAINER

(2 required each side of pier).
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:

See sheet 11 of 32 for superstructure details and Bill of Material.

Cost of 30 Lb. roofing felt is included with Concrete Superstructure.

Cost of side retainer and anchor bolts shall be included with Concrete Structures.

Anchor bolts and side retainers shall be according to Article 521.06 of the Standard Specifications. Side retainers shall be hot dip galvanized.

Anchor bolts and side retainers shall be installed as each exterior beam is erected unless an equivalent temporary means of lateral restraint is used.

DFP-I4854-0

6-15-2019

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DEPARTMENT OF TRANSPORTATION

PIER DIAPHRAGM DETAILS
STRUCTURE NO. 077-3145

SCALE: | SHEET 13 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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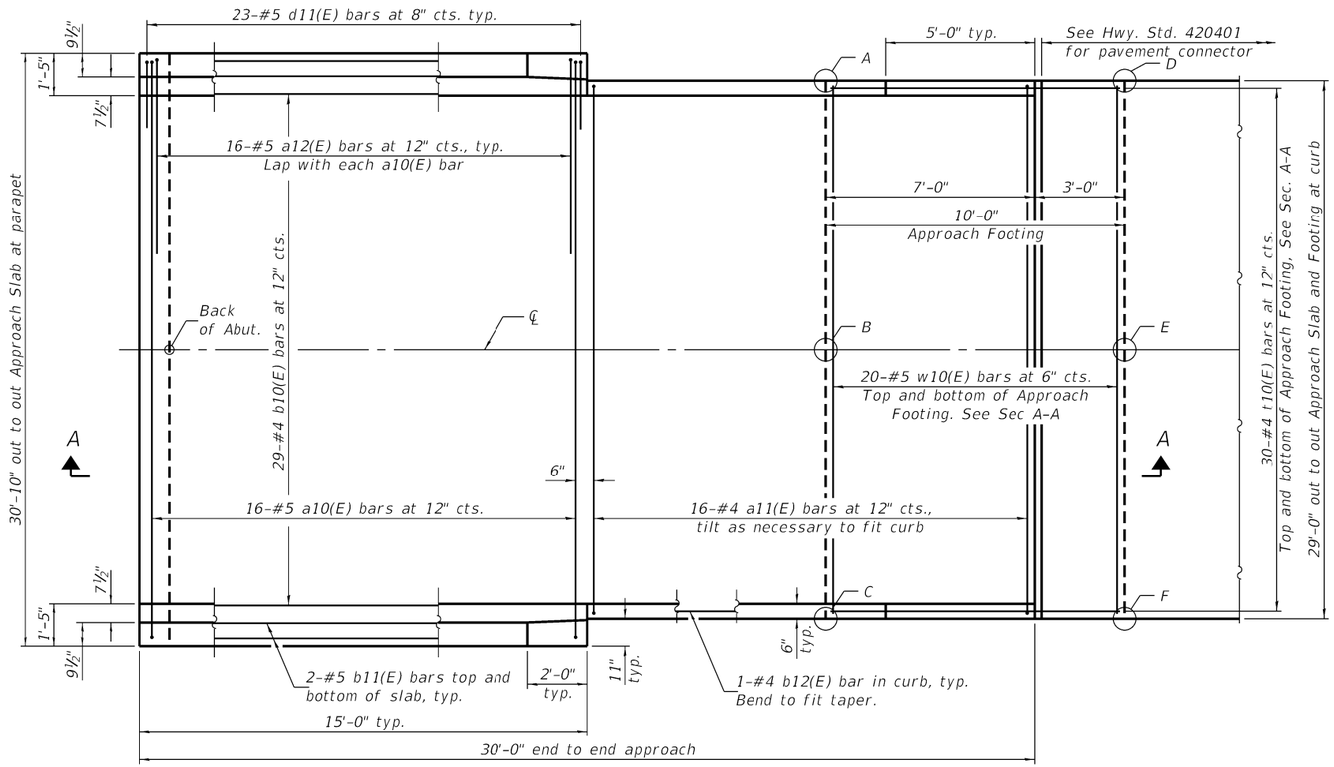
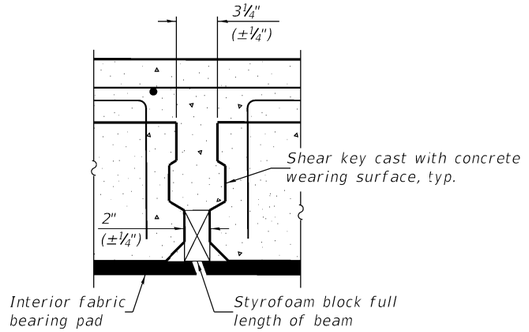


PLAN

(East approach slab shown; West approach slab similar by 180° rotation)

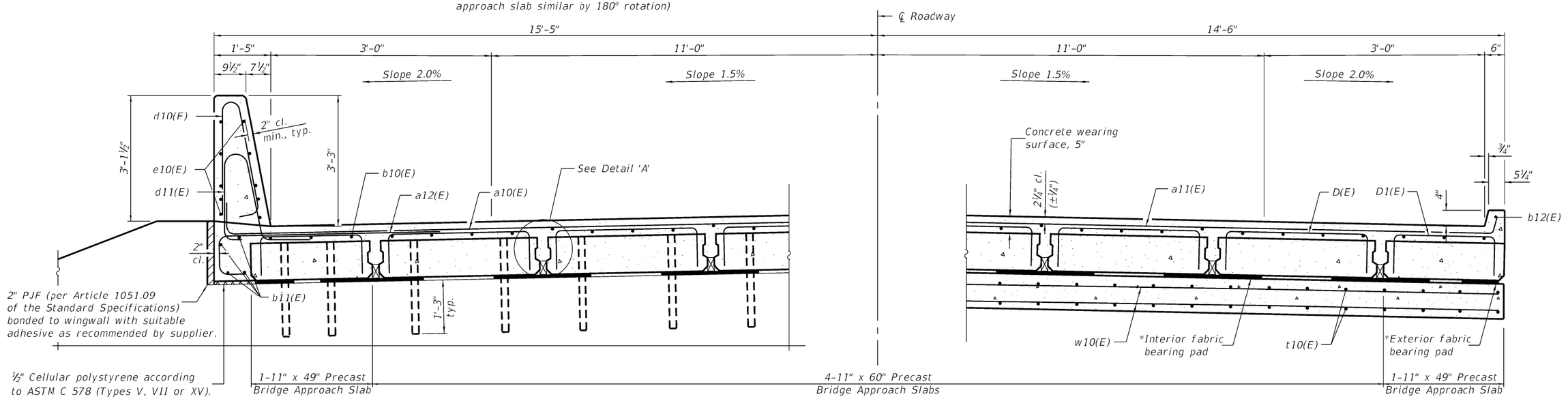


DETAIL 'A'

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

West Approach			East Approach		
Point/ Location	Top	Bottom	Point/ Location	Top	Bottom
A -	364.68	363.85	A -	364.65	363.82
B -	364.93	364.09	B -	364.90	364.06
C -	364.68	363.85	C -	364.65	363.82
D -	364.66	363.83	D -	364.63	363.80
E -	364.91	364.07	E -	364.88	364.04
F -	364.66	363.83	F -	364.63	363.80

* Fabric bearing pads at the expansion end shall be recessed ¼" into the approach footing and bonded. Adjusting shims, when required, shall be bonded to the top of the fabric bearing pads.



NEAR ABUTMENT

AT APPROACH FOOTING

CROSS SECTION

(Looking East)

BA-P-39CS-0 10-12-2021 (Beams: 36" min. width; 72" max. width)

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	DRAWN -	REVISED -
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PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST BRIDGE APPROACH SLAB
STRUCTURE NO. 077-3145

SCALE: SHEET 14 OF 32 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	29
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

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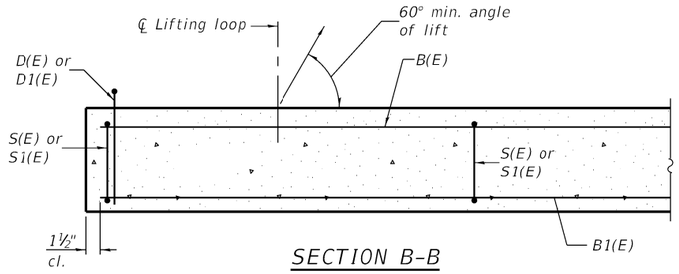
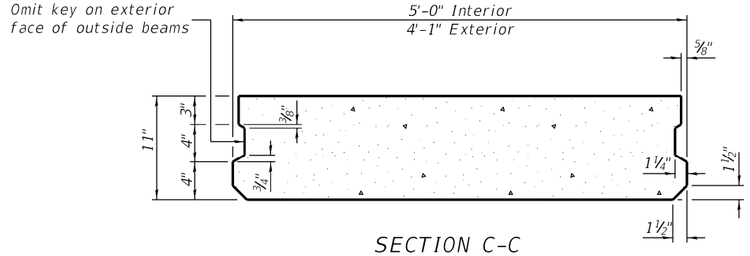
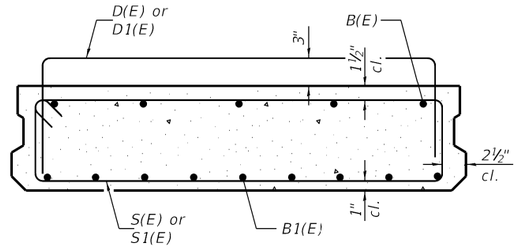


SECTION B-B



SECTION C-C
(Showing dimensions)



SECTION C-C
(Showing reinforcement)

Notes:

The precast bridge approach slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Bridge Approach Slab.

Cast-in-place substitution of Precast Bridge Approach Slab is not allowed.

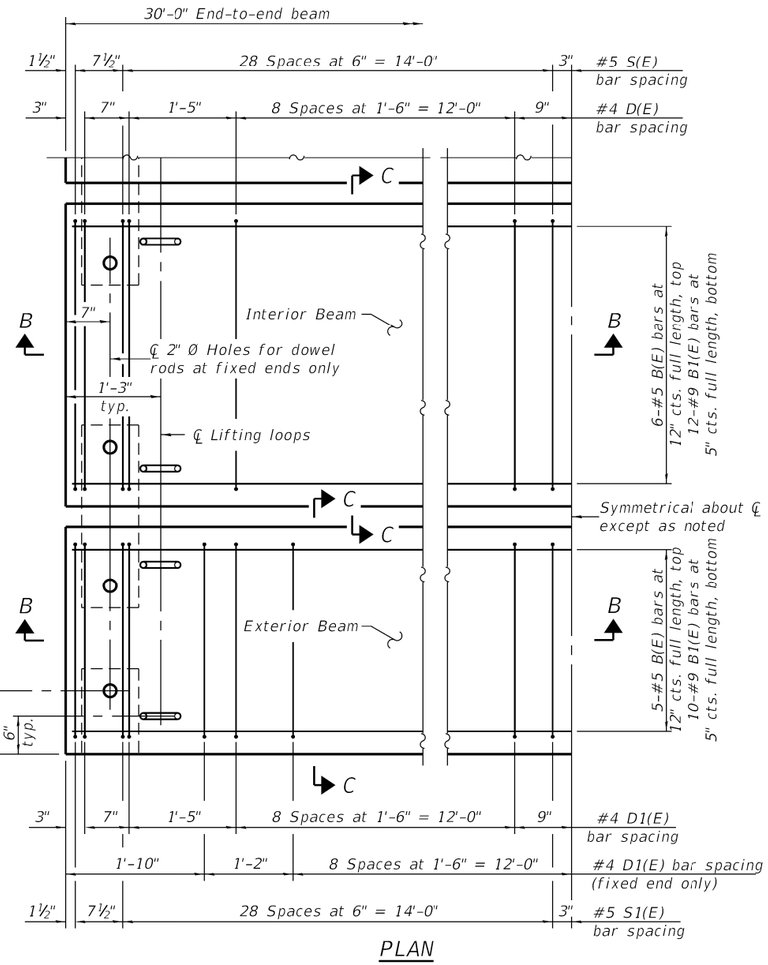
The top surface of precast bridge approach slabs shall be finished similar to precast prestressed deck beams with concrete wearing surface as specified in the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products."

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Bridge Approach Slab.

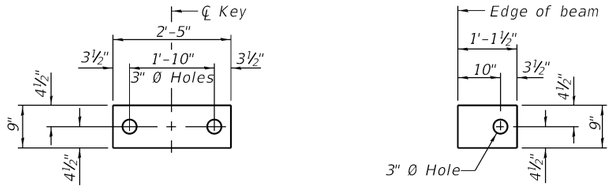
A minimum 2 ½" Ø lifting pins shall be used to engage the lifting loops during handling.

Compressive strength of precast concrete, f'c shall be 6,000 psi.

Compressive strength of precast concrete during initial lifting, f'ci shall be 5,000 psi.



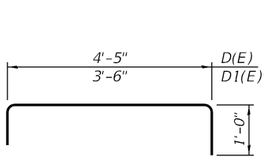
PLAN



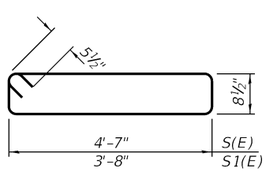
INTERIOR EXTERIOR

FABRIC BEARING PAD

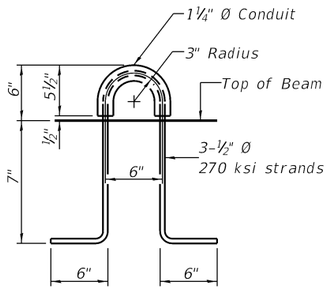
Notes:
Bearing pads at fixed end shall be ½" thick and bearing pads at expansion end shall be ¾" thick.
Omit holes for fabric bearing pads at approach slab footing end of beams.



BARS D(E) & D1(E)



BARS S(E) & S1(E)



LIFTING LOOP DETAIL

(An alternate lifting loop with a proof load of 25,000 lbs. and utilized according to the manufacturer's recommendations may be used)

BAR LIST
EACH INTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	6	#5	29'-8"	—
B1(E)	12	#9	29'-8"	—
D(E)	22	#4	6'-5"	⌐¬
S(E)	58	#5	11'-6"	▭

BAR LIST
EACH EXTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	5	#5	29'-8"	—
B1(E)	10	#9	29'-8"	—
D1(E)	32	#4	5'-6"	⌐¬
S1(E)	58	#5	9'-8"	▭

BA-P-39CS-0 10-12-2021 (Beams: 36" min. width; 72" max. width)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST BRIDGE APPROACH SLAB
STRUCTURE NO. 077-3145

SCALE: SHEET 15 OF 32 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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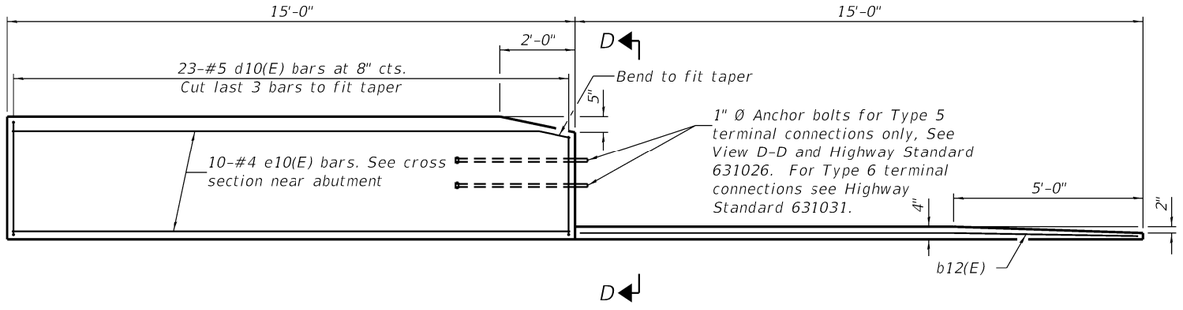
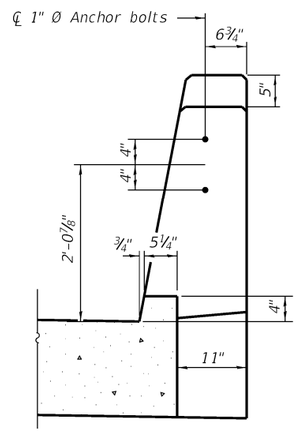
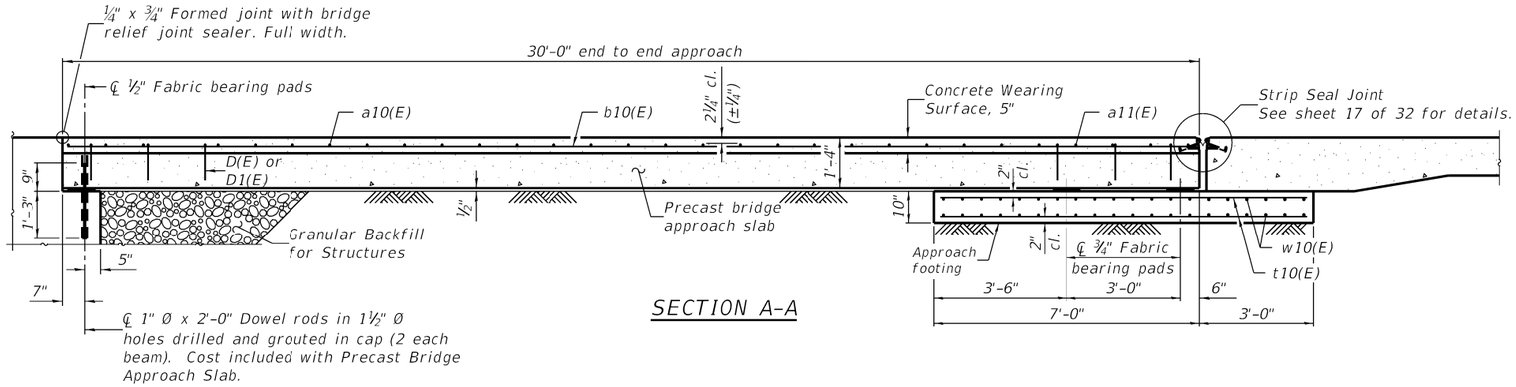
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	



INSIDE ELEVATION OF PARAPET AND CURB



VIEW D-D



SECTION A-A

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

After precast bridge approach slabs have been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and cured according to Article 1020.13(a)(3) or 1020.13(a)(5) of the Standard Specifications for a minimum of 24 hours before casting the shear keys and wearing surface.

Any concrete poured monolithically with the wearing surface, such as curbs, shall not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".

The strip seal shall extend 6" beyond the edge of the approach slab on each end.

Parapet concrete shall be paid for as Concrete Superstructure.

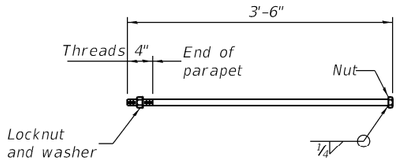
Approach footing concrete shall be paid for as Concrete Structures.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

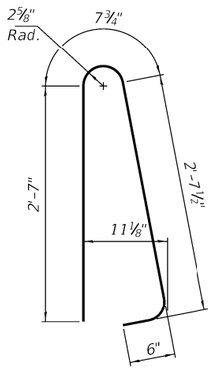
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 32.

Cost of cellular polystyrene is included with Concrete Superstructure.

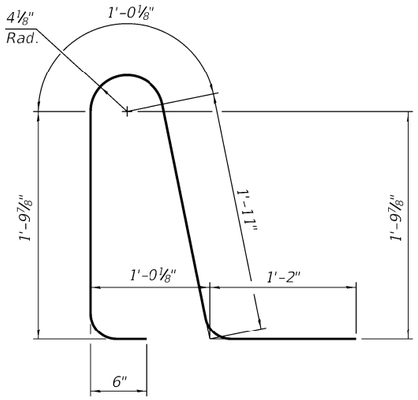


1" Ø ANCHOR BOLT

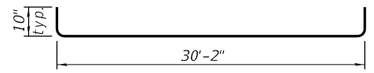
(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications. Cost of anchor bolt assemblies included with Concrete Superstructure)



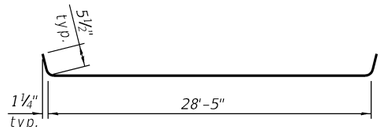
BAR d10(E)



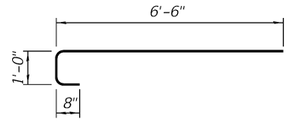
BAR d11(E)



BAR a10(E)



BAR a11(E)



BAR a12(E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	32	#5	31'-10"	
a11(E)	32	#4	29'-4"	
a12(E)	64	#5	8'-2"	
b10(E)	58	#4	29'-8"	
b11(E)	16	#5	14'-8"	
b12(E)	4	#5	14'-8"	
d10(E)	92	#5	6'-5"	
d11(E)	92	#5	6'-5"	
e10(E)	40	#4	14'-8"	
t10(E)	120	#4	9'-8"	
w10(E)	80	#5	28'-8"	
Concrete Superstructure			Cu. Yd.	7.8
Concrete Structures			Cu. Yd.	17.9
Reinforcement Bars, Epoxy Coated			Pound	8,480
Precast Bridge Approach Slab			Sq. Ft.	1,690
Concrete Wearing Surface, 5"			Sq. Yd.	200

BA-P-39CS-0 10-12-2021 (Beams: 36" min. width; 72" max. width)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST BRIDGE APPROACH SLAB
STRUCTURE NO. 077-3145

SCALE: | SHEET 16 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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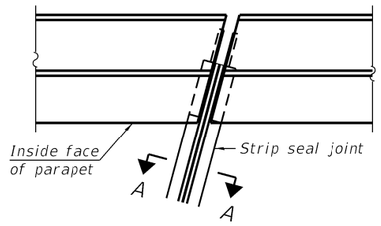
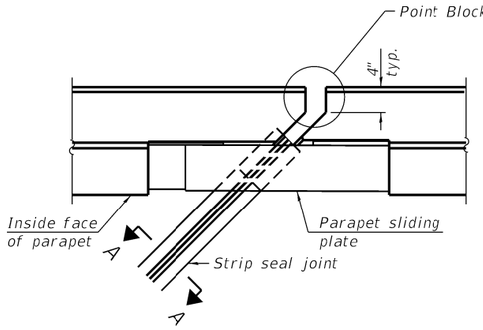
		ILLINOIS	FED. AID PROJECT	

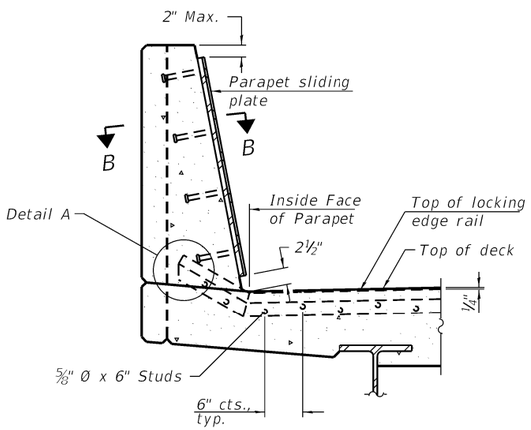


FOR SKEWS ≤ 30°



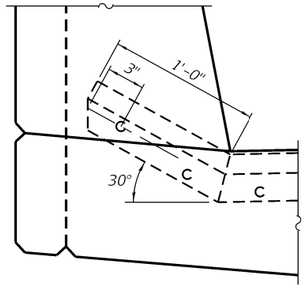
FOR SKEWS > 30°

PLAN AT PARAPET

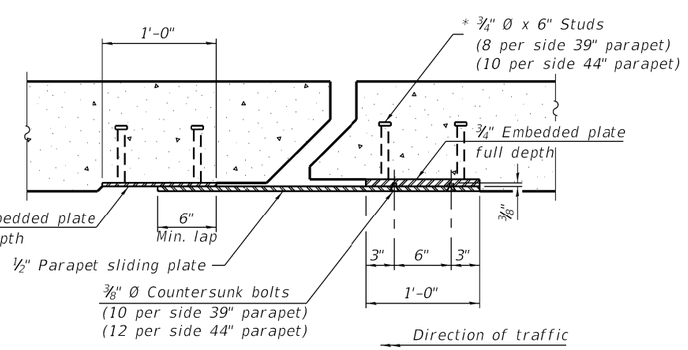


SECTION AT PARAPET

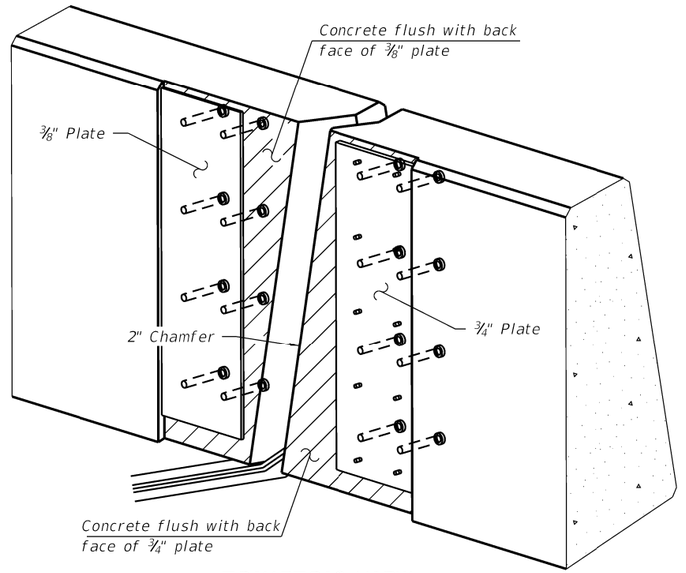
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



DETAIL A



SECTION B-B



TRIMETRIC VIEW

(Showing embedded plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

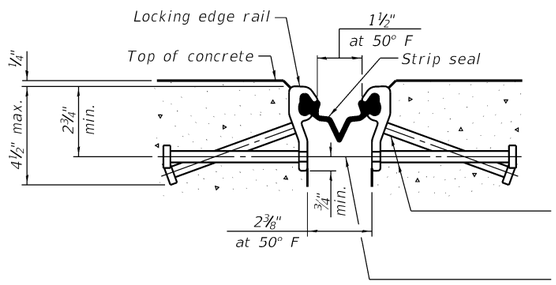
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

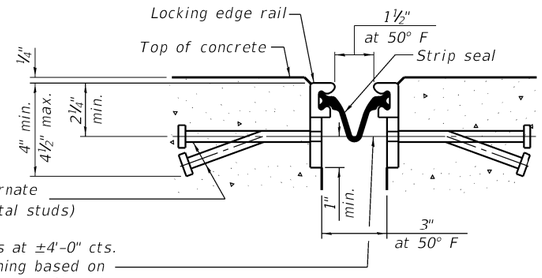
Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



SHOWING ROLLED RAIL JOINT



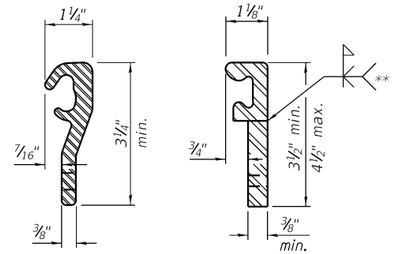
SHOWING WELDED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

3/32" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

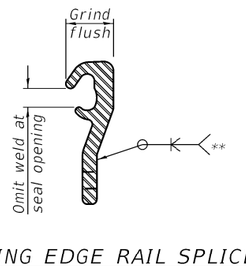


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	58

EJ-SS

1-1-2020

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	PLOT DATE = 10/7/2025	DATE -	REVISED -	

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 077-3145

SCALE: | SHEET 17 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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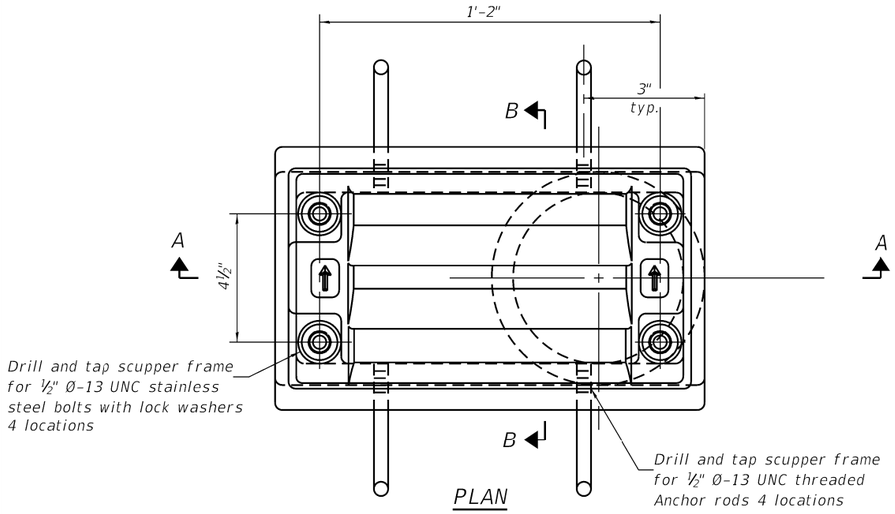
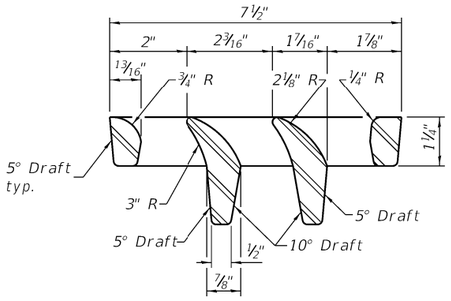
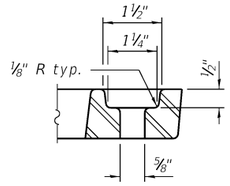
		ILLINOIS	FED. AID PROJECT	



PLAN



VANE GRATE DETAIL



GRATE BOLT HOLE DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.

Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.

Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

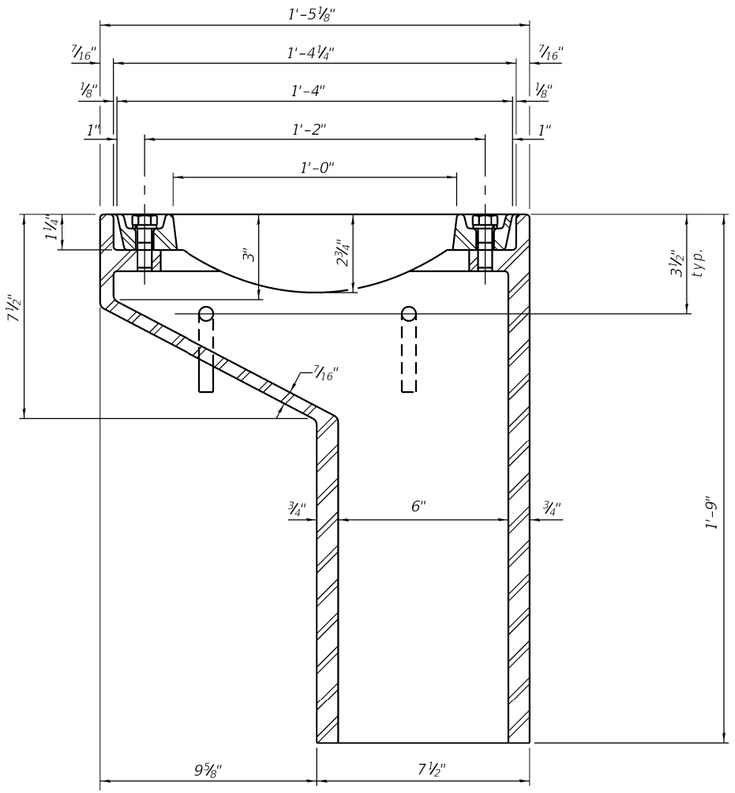
Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.

As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.

Exterior surfaces of downspouts and exterior exposed surfaces of the scupper frame below deck shall be pigmented by the manufacturer with a color that matches the concrete.

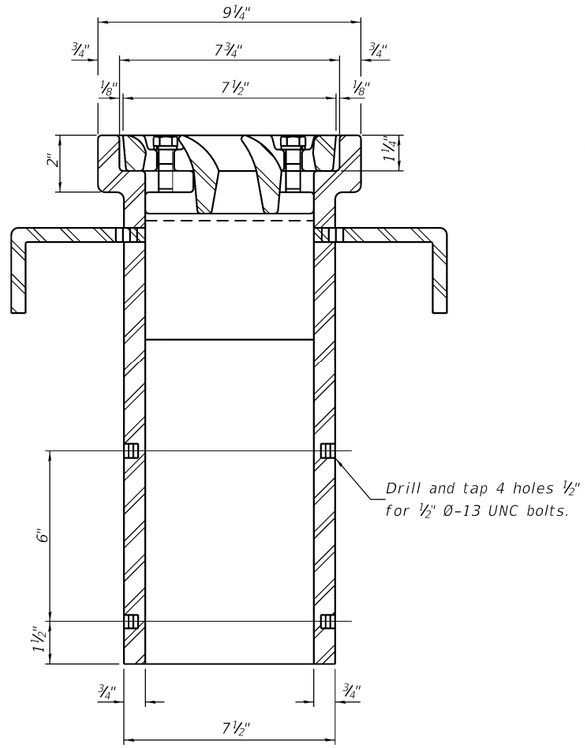
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scupper, DS-11.

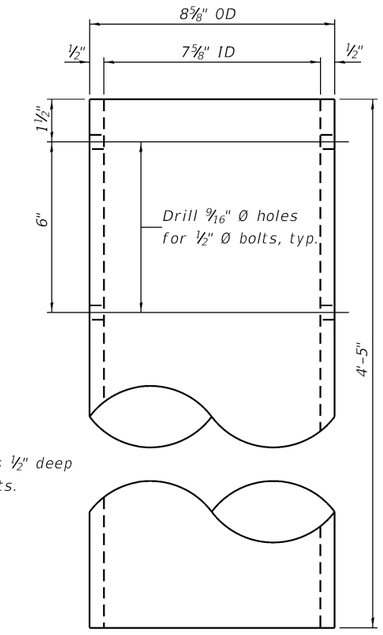


SECTION A-A

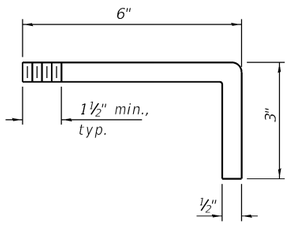
See sheets 1 & 2 of 32 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR ROD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

DS-11 1-1-2020

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9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
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USER NAME = bchristmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 077-3145

SCALE: | SHEET 18 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	33
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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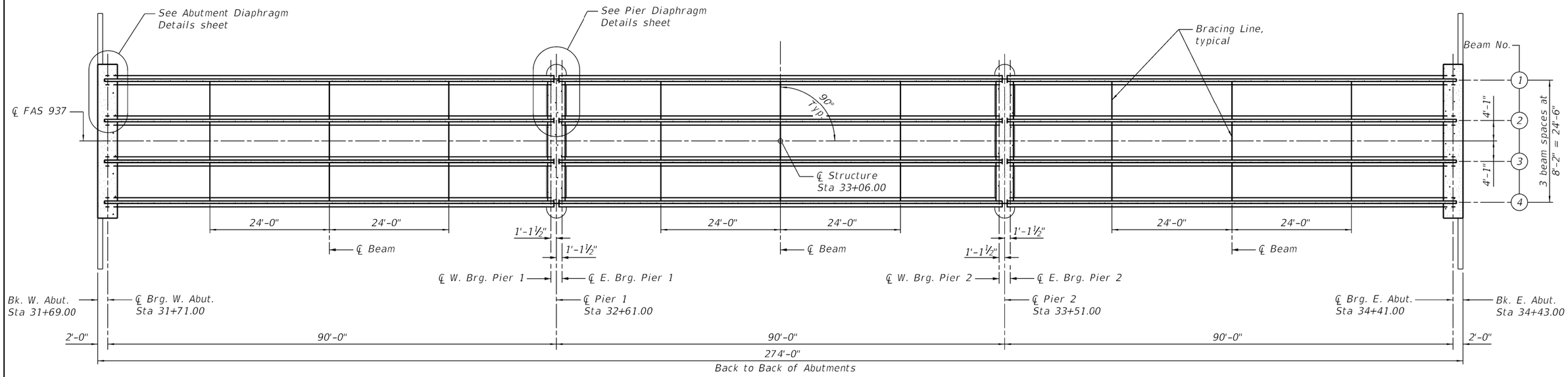
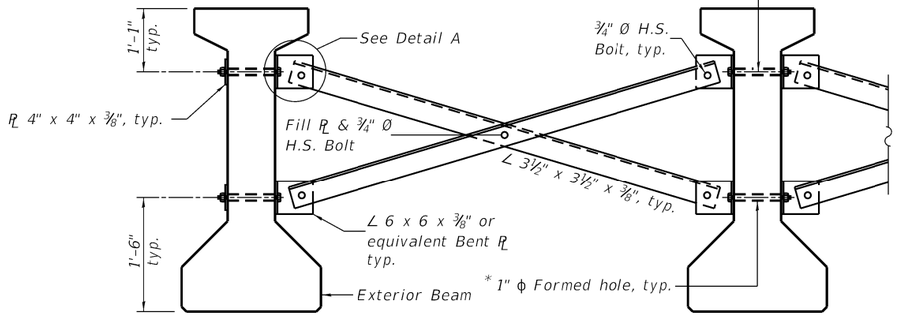


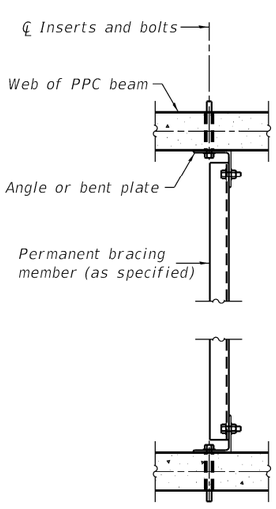
FRAMING PLAN

N

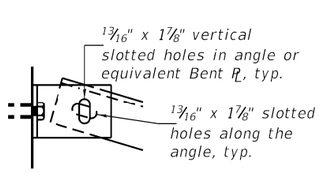
* Fabricator shall locate to miss strands within permissible tolerances.

¾" Ø Threaded rods with lock nuts, typ. Tightened to snug tight only.





PLAN
(When 90° bracing is specified)



DETAIL A

Notes:

All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.

Two hardened washers are required for each set of oversized holes.

All holes shall be 15/16" Ø unless otherwise noted.

5/16" x 3" x 3" plate washers are required over all slotted holes.

All bolts, threaded rods, and hardware shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

Bracing shall be installed as beams are erected and tightened as soon as possible during erection.

Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Beams.

PERMANENT BRACING DETAILS FOR 48" AND 54" PPC I-BEAMS

INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. 1 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I	(in^4)	213,715		213,715
I'	(in^4)	541,883		541,883
Sb	(in^3)	8,559		8,559
Sb'	(in^3)	13,090		13,090
St	(in^3)	7,362		7,362
St'	(in^3)	42,996		42,996
DC1	(k/')	1.472		1.472
MDC1	('k)	1,475		1,438
DC2	(k/')	0.525	0.525	0.525
MDC2	('k)	186.0	232.5	58.1
DW	(k/')	0.408	0.408	0.408
MDW	('k)	226.8	283.3	70.9
M_{L+IM}	('k)	1,943	1,876	1,564

	INTERIOR BEAM REACTION TABLE				
		Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
	RDC1 (k)	70.8	70.8	70.8
*	*RDC2* (k)	10.5	14.2	14.2
*	*RDW* (k)	12.6	17.1	17.1
*	R_{L+IM} (k)	109.3	98.2	98.2
	RTotal (k)	203.2	200.3	200.3

* At continuous piers, reactions from composite loads are assumed to be equally distributed to each bearing line.

I: Non-composite moment of inertia of beam section ($in.^4$).
I': Composite moment of inertia of beam section ($in.^4$).
Sb: Non-composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
Sb': Composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
St: Non-composite section modulus for the top fiber of the prestressed beam ($in.^3$).
St': Composite section modulus for the top fiber of the prestressed beam ($in.^3$).
DC1: Un-factored non-composite dead load (kips/ft.).
MDC1: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft).
M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

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HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 077-3145

SCALE: | SHEET 19 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	34
		CONTRACT NO. 99678		
	ILLINOIS FED. AID PROJECT			

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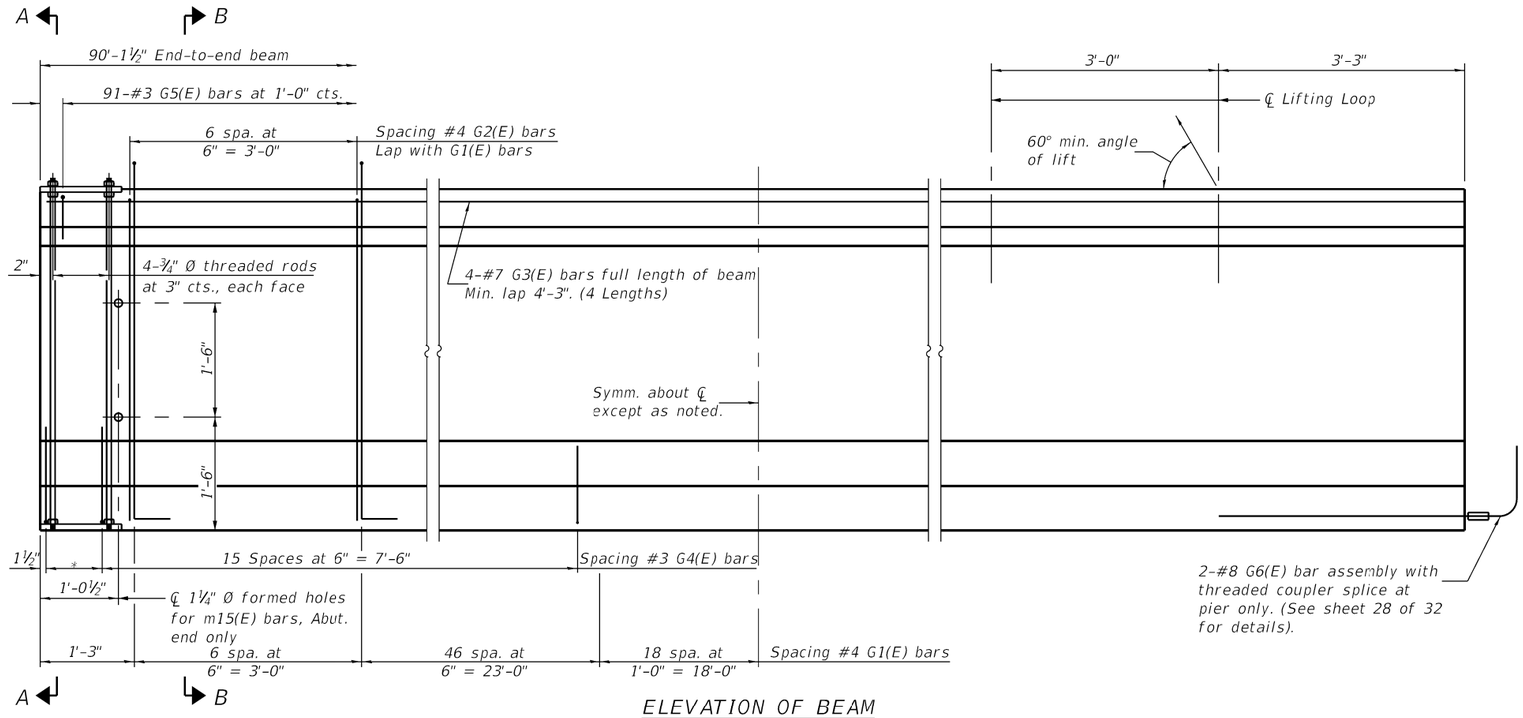
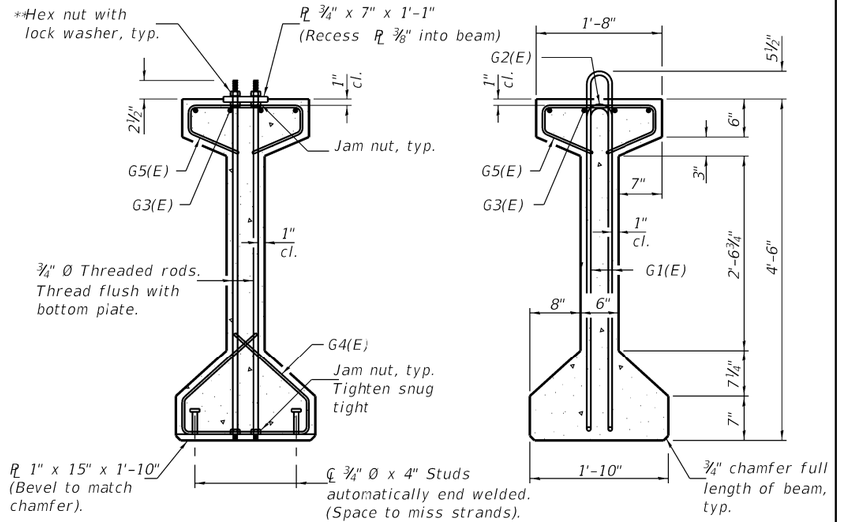


*3 spaces at 3" = 9"

ELEVATION OF BEAM
(Showing reinforcement & dimensions)

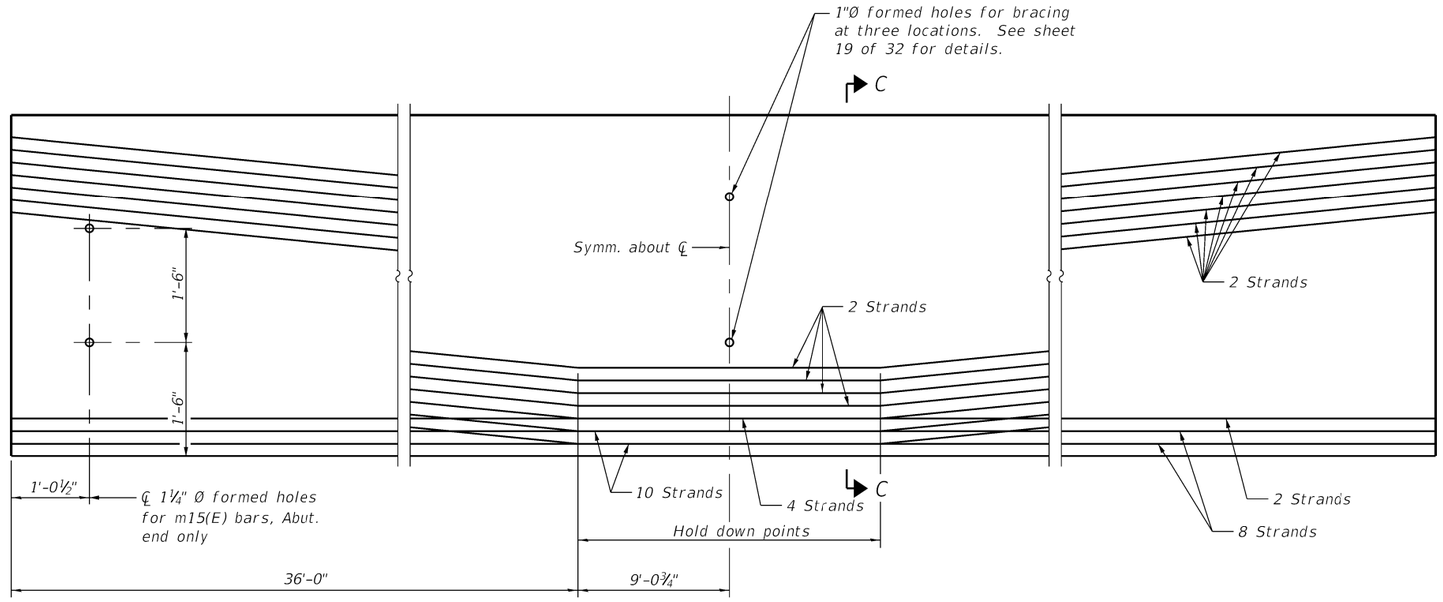


SECTION A-A
** Only tighten sufficiently to compress lock washers

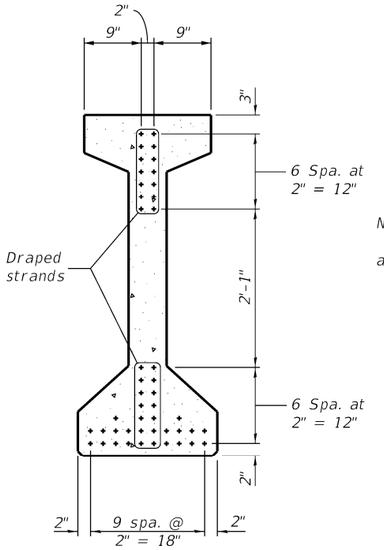
SECTION B-B

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G1(E)	139	#4	10'-7"	
G2(E)	14	#4	8'-8"	
G3(E)	16	#7	25'-9"	
G4(E)	38	#3	4'-11"	
G5(E)	91	#3	3'-5"	
G6(E)	2	#8	6'-6"	



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C
(32 - ½" Ø 270 ksi strands)

Notes:
See sheet 22 of 32 for additional details and Bill of Material.

PI-4-54 2-17-2017

MODEL: Default
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9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
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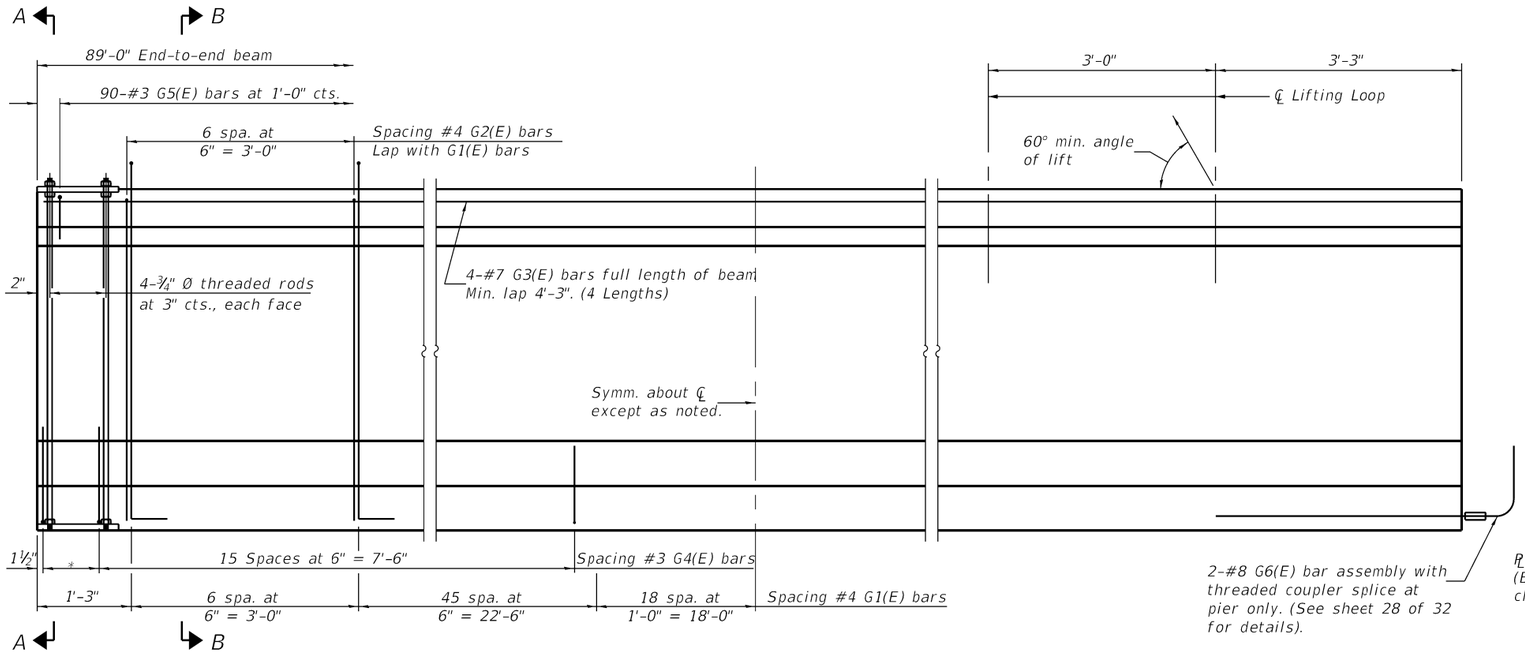
54" PPC I-BEAM – SPANS 1 & 3
STRUCTURE NO. 077-3145

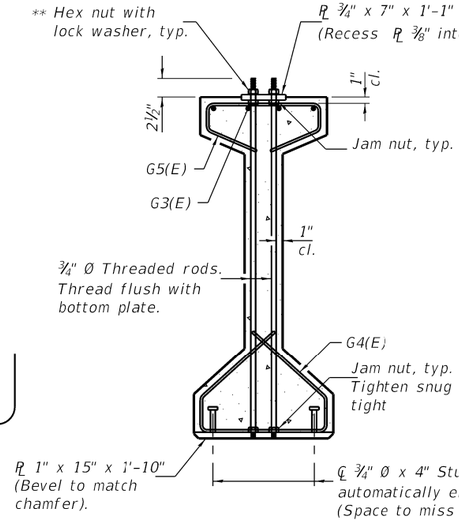
SCALE: | SHEET 20 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	35
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

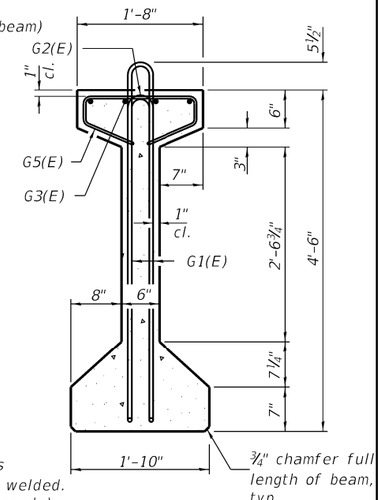


*3 spaces at 3" = 9"

ELEVATION OF BEAM
(Showing reinforcement & dimensions)



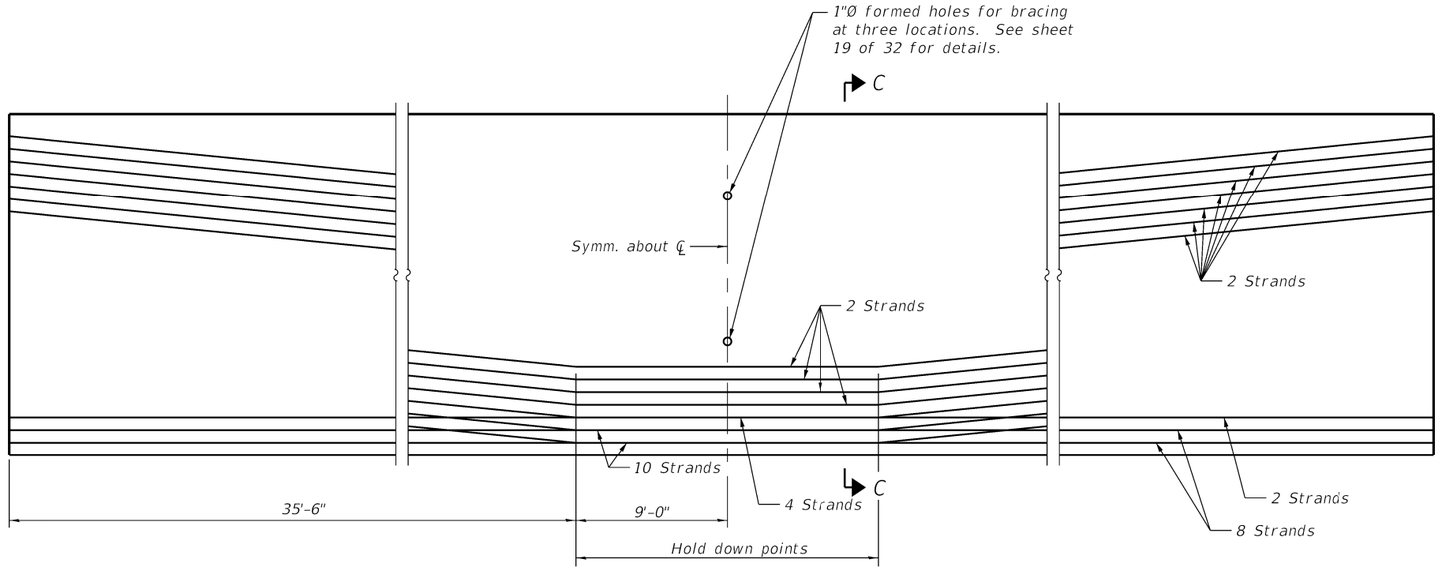
SECTION A-A
** Only tighten sufficiently to compress lock washers



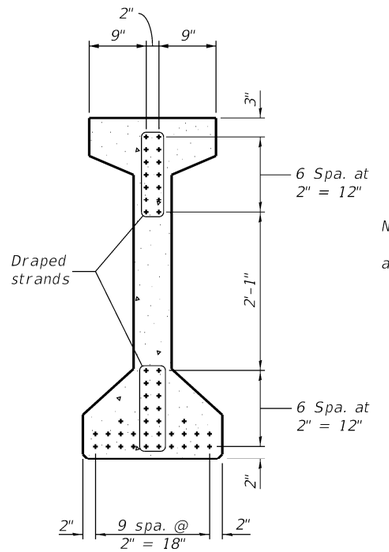
SECTION B-B

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
G1(E)	138	#4	10'-7"	
G2(E)	14	#4	8'-8"	
G3(E)	16	#7	25'-6"	
G4(E)	38	#3	4'-11"	
G5(E)	90	#3	3'-5"	
G6(E)	4	#8	6'-6"	



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C
(32 - ½" Ø 270 ksi strands)

Notes:
See sheet 22 of 32 for additional details and Bill of Material.

PI-4-54 2-17-2017

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9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
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STATE OF ILLINOIS
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54" PPC I-BEAM - SPAN 2
STRUCTURE NO. 077-3145

SCALE: | SHEET 21 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	36
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

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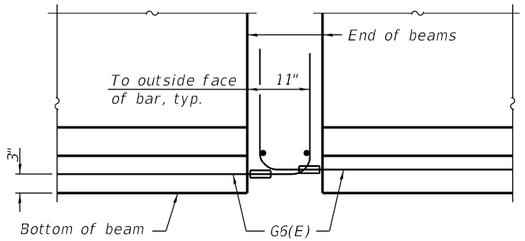
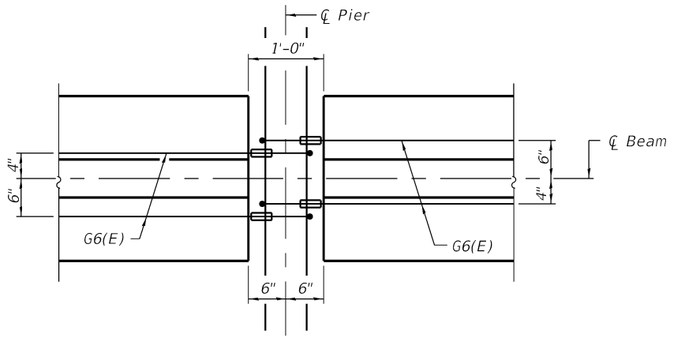
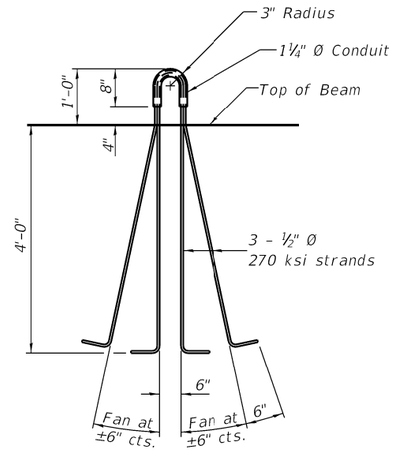


ELEVATION OF BEAM AT PIER



PLAN OF BEAM AT PIER



LIFTING LOOP DETAIL

NOTES

Inserts for ¾" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'c, of 7,000 psi and a release concrete compressive strength, f'ci, of 6,000 psi.

A minimum 2½" Ø lifting pin shall be used to engage the lifting loops during handling.

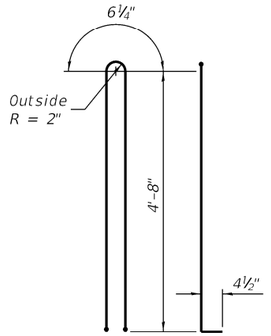
Tilt G6(E) bars when necessary to maintain 1½" clearance.

The top and bottom plates shall be AASHTO M270 Grade 50.

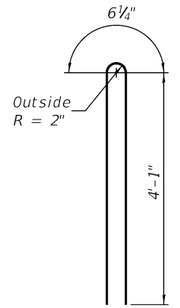
The top and bottom plates shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

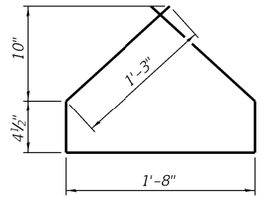
The G6(E) bar assembly shall develop, in tension, at least 125 percent of the yield strength of a grade 60 reinforcement bar times the nominal cross-sectional area of a #8 bar. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.



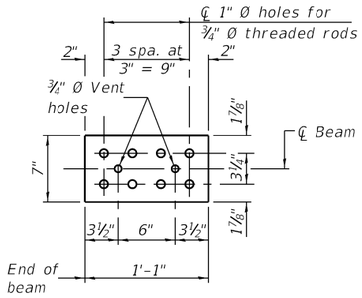
BAR G1(E)



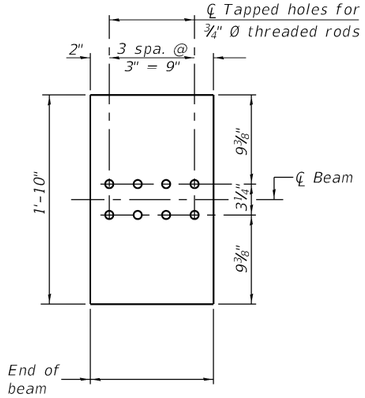
BAR G2(E)



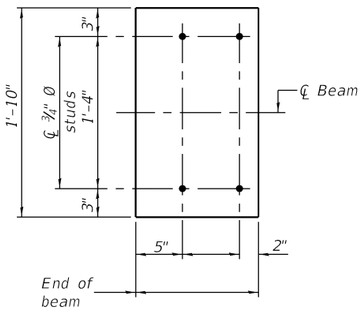
BAR G4(E)



TOP PLATE

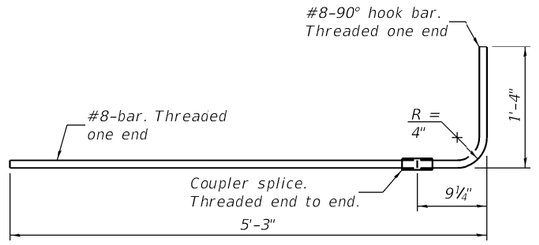


BOTTOM PLATE
(Showing threaded rods)

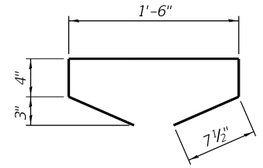


BOTTOM PLATE
(Showing studs)

See bearing details for pintle hole locations when required.



G6(E) BAR ASSEMBLY



BAR G5(E)

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	1,077

PI-4-54D 2-25-2019

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmarn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
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54" PPC I-BEAM DETAILS
STRUCTURE NO. 077-3145

SCALE: | SHEET 22 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	37
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

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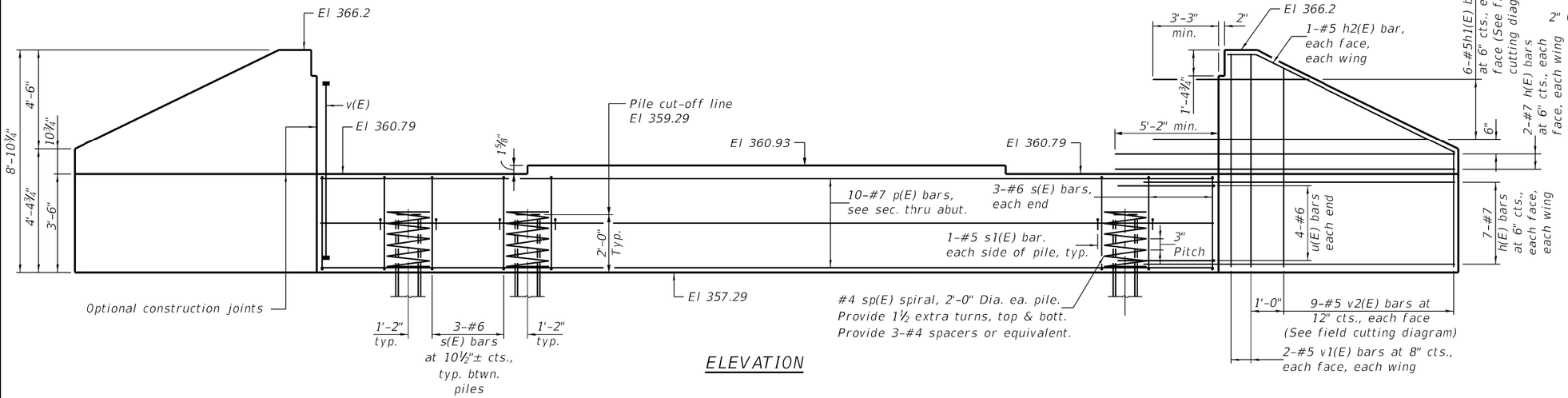
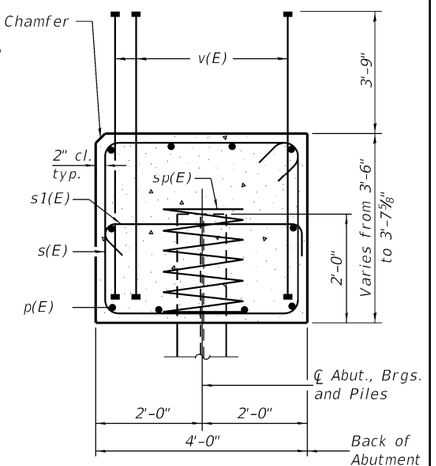


ELEVATION



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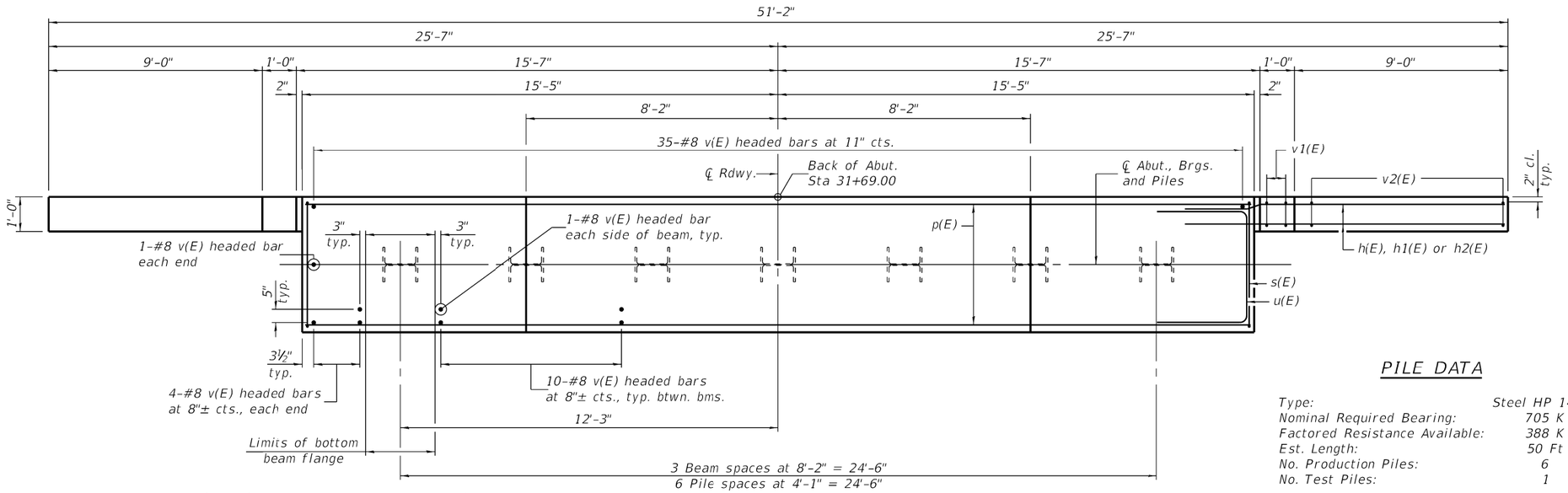
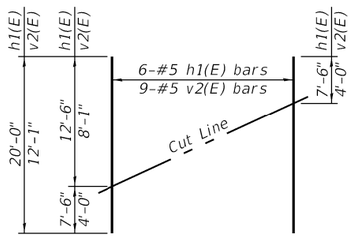


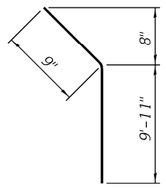
PLAN



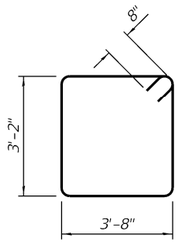
FIELD CUTTING DIAGRAM

Order h1(E) and v2(E) full length. Cut as shown and use remainder of bars in opposite wing.

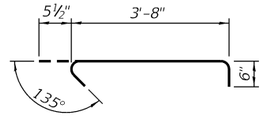
BAR v(E)



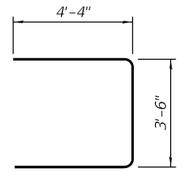
BAR h2(E)



BAR s(E)



BAR s1(E)



BAR u(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#7	15'-2"	
h1(E)	12	#5	20'-0"	
h2(E)	4	#5	10'-8"	
p(E)	10	#7	30'-6"	
s(E)	24	#6	15'-0"	
s1(E)	14	#5	4'-8"	
* sp(E)	7	#4	2'-0"	
u(E)	8	#6	12'-2"	
v(E)	83	#8	7'-0"	
v1(E)	8	#5	8'-6"	
v2(E)	18	#5	12'-1"	
Structure Excavation		Cu Yd	81	
Concrete Structures		Cu Yd	36.8	
Reinforcement Bars, Epoxy Coated		Pound	5,000	
Furnishing Steel Piles, HP 14x89		Foot	300	
Driving Piles		Foot	300	
Test Pile Steel, HP 14x89		Each	1	
Pile Shoe		Each	7	

* Length is height of spiral.

PILE DATA

Type:	Steel HP 14x89
Nominal Required Bearing:	705 K
Factored Resistance Available:	388 K
Est. Length:	50 Ft
No. Production Piles:	6
No. Test Piles:	1

Notes:

Pour steps monolithically with cap.

Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

For details of piles see sheet 27 of 32.

AI-CBS-0

6-15-2019 (Modified)

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmarn
PLOT SCALE = 2.0000 ' / in.
PLOT DATE = 10/7/2025

DESIGNED - | REVISED -
DRAWN - | REVISED -
CHECKED - | REVISED -
DATE - | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
STRUCTURE NO. 077-3145

SCALE: | SHEET 23 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	38
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

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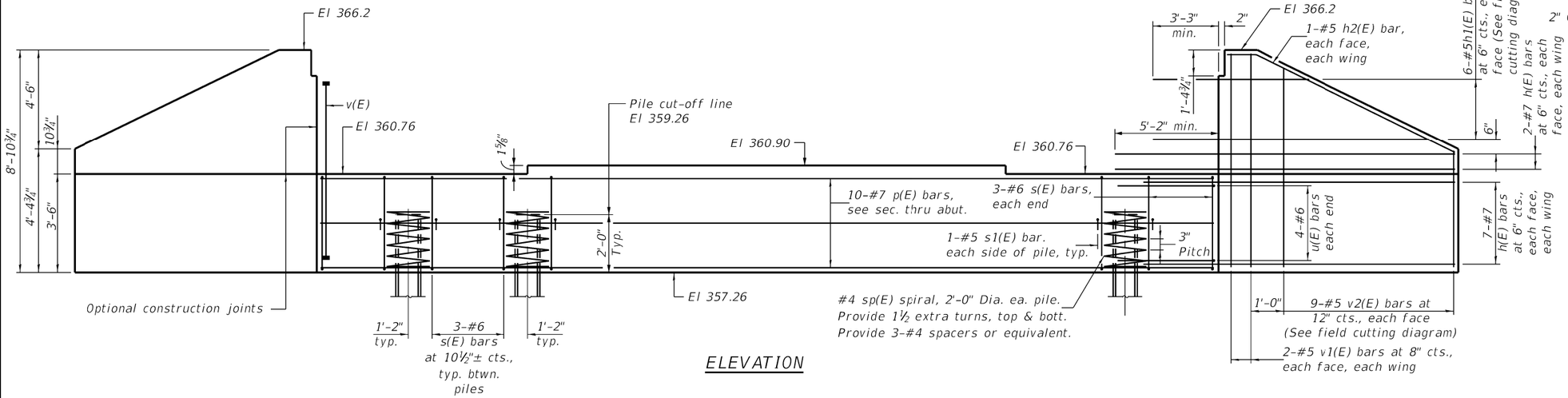
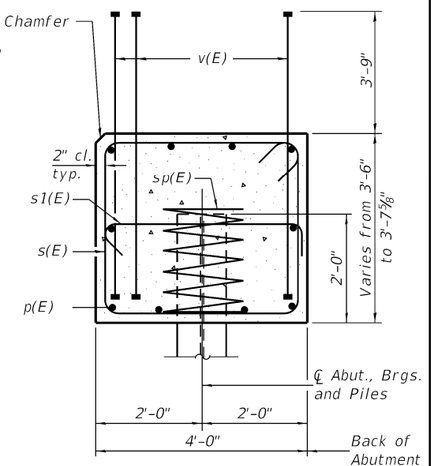


ELEVATION



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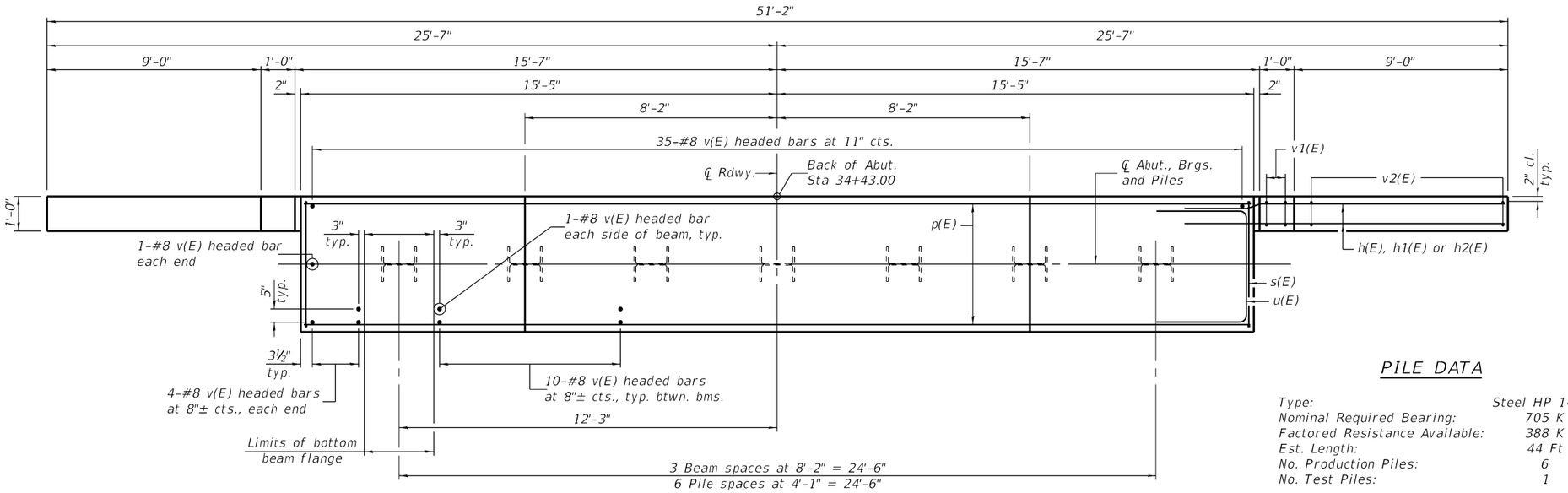
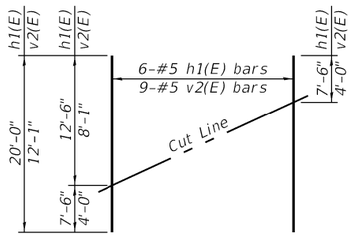


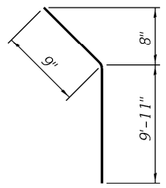
PLAN



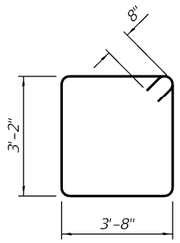
FIELD CUTTING DIAGRAM

Order h1(E) and v2(E) full length. Cut as shown and use remainder of bars in opposite wing.

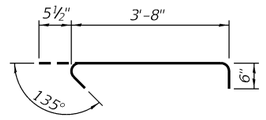
BAR v(E)



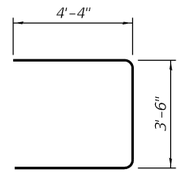
BAR h2(E)



BAR s(E)



BAR s1(E)



BAR u(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#7	15'-2"	
h1(E)	12	#5	20'-0"	
h2(E)	4	#5	10'-8"	
p(E)	10	#7	30'-6"	
s(E)	24	#6	15'-0"	
s1(E)	14	#5	4'-8"	
* sp(E)	7	#4	2'-0"	
u(E)	8	#6	12'-2"	
v(E)	83	#8	7'-0"	
v1(E)	8	#5	8'-6"	
v2(E)	18	#5	12'-1"	
Structure Excavation	Cu Yd	81		
Concrete Structures	Cu Yd	36.8		
Reinforcement Bars, Epoxy Coated	Pound	5,000		
Furnishing Steel Piles, HP 14x89	Foot	264		
Driving Piles	Foot	264		
Test Pile Steel, HP 14x89	Each	1		
Pile Shoe	Each	7		

* Length is height of spiral.

PILE DATA

Type:	Steel HP 14x89
Nominal Required Bearing:	705 K
Factored Resistance Available:	388 K
Est. Length:	44 Ft
No. Production Piles:	6
No. Test Piles:	1

Notes:
Pour steps monolithically with cap.
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
For details of piles see sheet 27 of 32.

AI-CBS-0

6-15-2019 (Modified)

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmarn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT
STRUCTURE NO. 077-3145

SCALE: | SHEET 24 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	39
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

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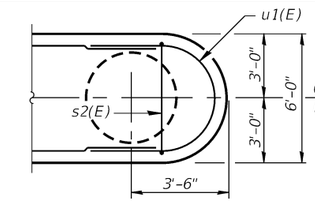
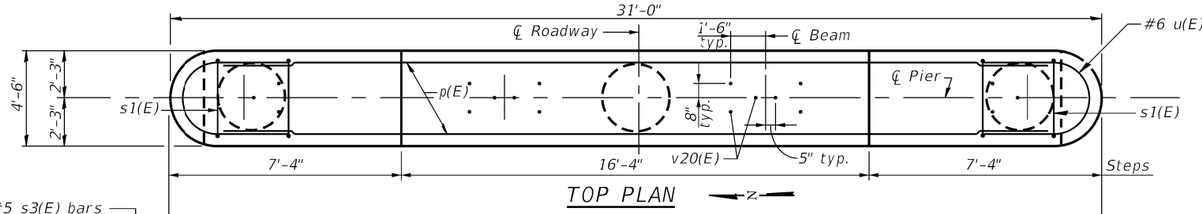
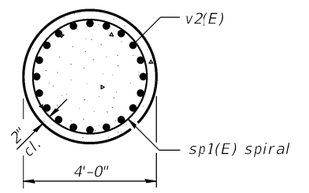


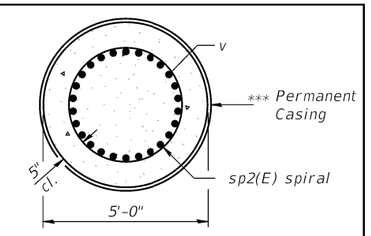
SECTION D-D



TOP PLAN



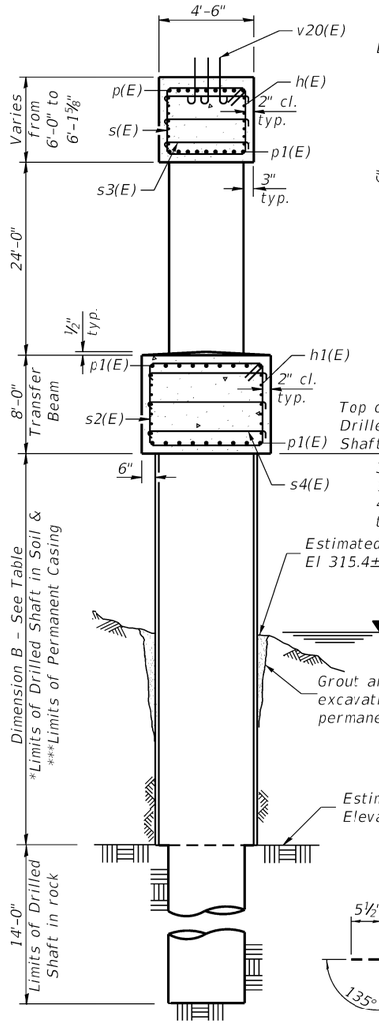
SECTION A-A



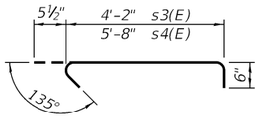
SECTION B-B

Note:
When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1½ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

Ⓐ Splicing of reinforcement will not be allowed in this region.

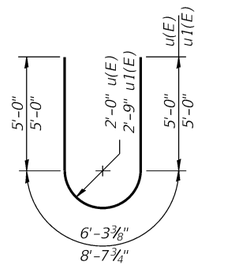


SECTION C-C

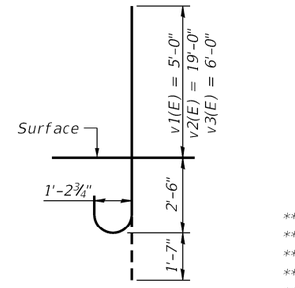


BARS s3(E) & s4(E)

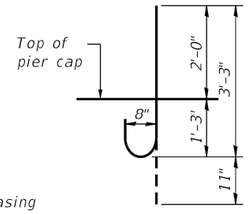
ELEVATION
(Looking East)



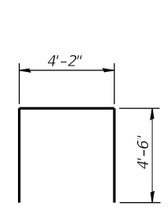
BARS u(E) & u1(E)



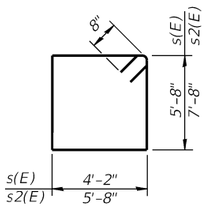
BARS v1(E), v2(E) & v3(E)



BAR v20(E)



BAR s1(E)



BARS s(E) & s2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#5	27'-0"	—
h1(E)	14	#6	26'-6"	—
p(E)	9	#10	27'-0"	—
p1(E)	27	#8	26'-6"	—
p2(E)	16	#6	0'-10"	—
s(E)	28	#6	21'-0"	□
s1(E)	16	#6	13'-2"	—
s2(E)	28	#6	28'-0"	□
s3(E)	30	#5	5'-2"	⊐
s4(E)	42	#5	6'-8"	⊐
sp1(E)	3	#5	28'-0"	∿∿∿
sp2(E)	3	#6	24'-0"	∿∿∿
sp11	1	#6	44'-6"	∿∿∿
sp12	1	#6	33'-6"	∿∿∿
** sp13	1	#6	26'-6"	∿∿∿
**				
** u(E)	24	#6	16'-4"	⊃
** u1(E)	30	#6	18'-8"	⊃
**				
v1(E)	72	#11	9'-1"	⊃
v2(E)	72	#11	23'-1"	⊃
v3(E)	102	#11	10'-1"	⊃
v11	34	#11	60'-0"	—
v12	34	#11	49'-0"	—
v13	34	#11	42'-0"	—
v20(E)	18	#8	4'-2"	⊃
Concrete Structures			Cu Yd	129.2
Reinforcement Bars			Pound	31,830
Reinforcement Bars, Epoxy Coated			Pound	35,680
Drilled Shaft in Soil			Cu Yd	83.9
Drilled Shaft in Rock			Cu Yd	24.7
Permanent Casing			Foot	115
Mechanical Splicers			Each	174
Crosshole Sonic Logging Access Ducts			Foot	630
Crosshole Sonic Logging Testing			Foot	3

Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.

** Length is height of spiral.

SHAFT TABLE

Table	Description	S1	S2	S3
A	Estimated Top of Rock Elevation	275.5±	286.5±	293.5±
B	Limits of Drilled Shaft in Soil & Permanent Casing	48'-2"	37'-2"	30'-2"

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

*** Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications.
Pay limits for the Permanent Casing shall be based on the minimum length shown.

If a portion of the drilled shaft web walls or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

P-DSTB 2-17-2017 (Modified)

MODEL: Default
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HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

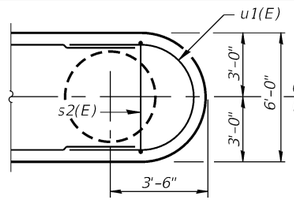
USER NAME = bchristmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

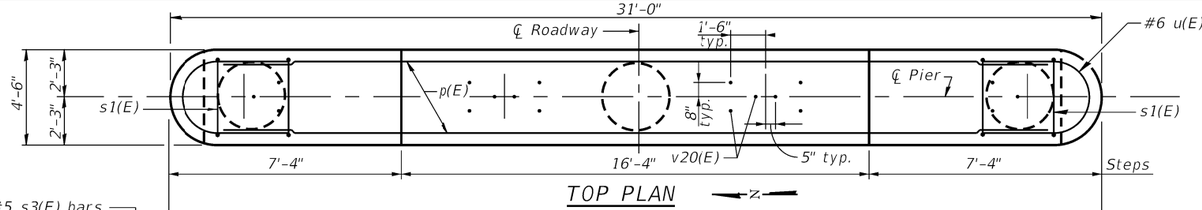
PIER 1
STRUCTURE NO. 077-3145

SCALE: | SHEET 25 OF 32 SHEETS | STA. | TO STA.

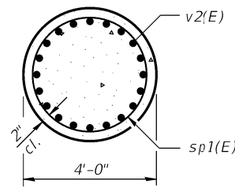
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	40
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	



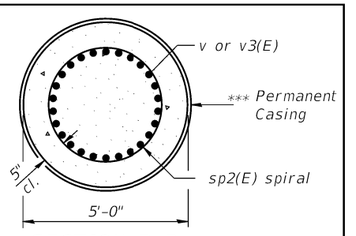
SECTION D-D



TOP PLAN



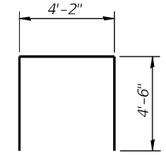
SECTION A-A



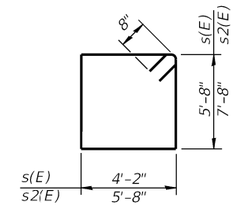
SECTION B-B

Note:
When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1½ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

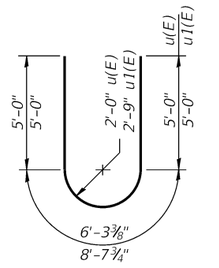
Ⓐ Splicing of reinforcement will not be allowed in this region.



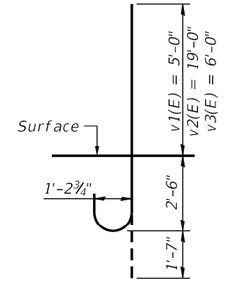
BAR s1(E)



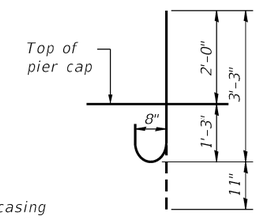
BARS s(E) & s2(E)



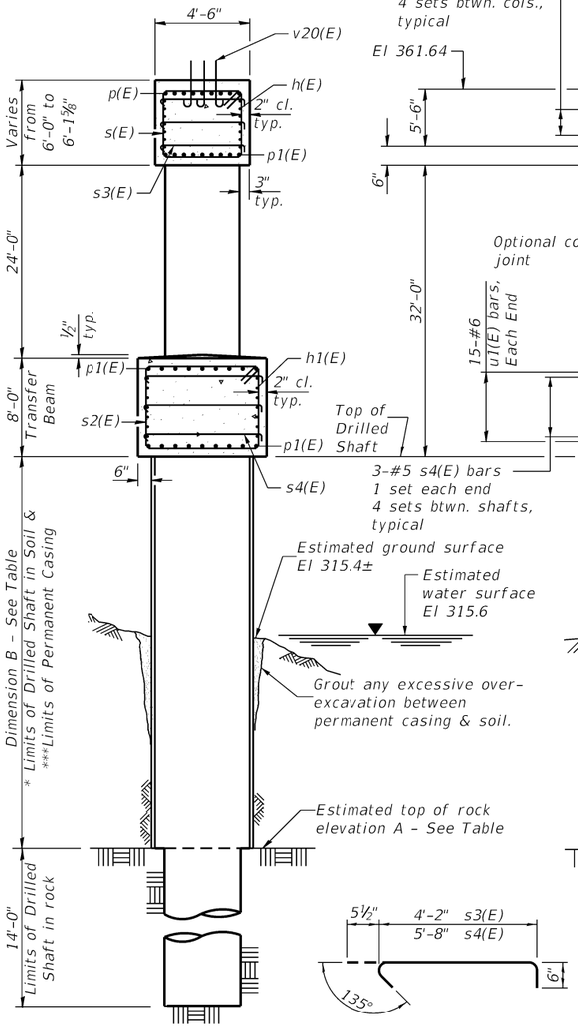
BARS u(E) & u1(E)



BARS v1(E), v2(E) & v3(E)



BAR v20(E)



SECTION C-C

BARS s3(E) & s4(E)

ELEVATION
(Looking East)

SHAFT TABLE

Table	Description	S1	S2	S3
A	Estimated Top of Rock Elevation	308.5±	305.5±	304.5±
B	Limits of Drilled Shaft in Soil & Permanent Casing	15'-2"	18'-2"	19'-2"

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

*** Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications.
Pay limits for the Permanent Casing shall be based on the minimum length shown.

If a portion of the drilled shaft web walls or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h(E)	18	#5	27'-0"	
	h1(E)	24	#5	26'-6"	
	p(E)	9	#10	27'-0"	
	p1(E)	27	#8	26'-6"	
	p2(E)	16	#6	0'-10"	
	s(E)	28	#5	21'-0"	
	s1(E)	16	#5	13'-2"	
	s2(E)	28	#5	28'-0"	
	s3(E)	30	#5	5'-2"	
	s4(E)	42	#5	6'-8"	
**	sp1(E)	3	#5	28'-0"	
**	sp2(E)	3	#6	24'-0"	
**	sp21	1	#6	17'-6"	
**	sp22	1	#6	14'-6"	
**	sp23	1	#6	13'-6"	
	u(E)	24	#6	16'-4"	
	u1(E)	30	#6	18'-8"	
	v1(E)	72	#11	9'-1"	
	v2(E)	72	#11	23'-1"	
	v3(E)	102	#11	10'-1"	
	v21	34	#11	33'-0"	
	v22	34	#11	30'-0"	
	v23	34	#11	29'-0"	
	v20(E)	18	#8	4'-2"	
	Concrete Structures		Cu Yd	129.2	
	Reinforcement Bars		Pound	18,700	
	Reinforcement Bars, Epoxy Coated		Pound	35,680	
	Drilled Shaft in Soil		Cu. Yd.	38.1	
	Drilled Shaft in Rock		Cu. Yd.	24.7	
	Permanent Casing		Foot	52	
	Mechanical Splicers		Each	174	
	Crosshole Sonic Logging Access Ducts		Foot	378	
	Crosshole Sonic Logging Testing		Foot	3	

Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.

** Length is height of spiral.

P-DSTB 2-17-2017 (Modified)

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9360 HOLY CROSS LANE
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DEPARTMENT OF TRANSPORTATION

PIER 2
STRUCTURE NO. 077-3145

SCALE: | SHEET 26 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	41
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

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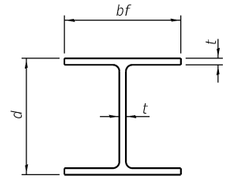
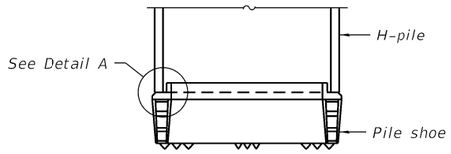


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14¼"	14⅞"	13/16"	30"
x102	14"	14¾"	1 1/16"	30"
x89	13⅞"	14¾"	⅝"	30"
x73	13⅝"	14⅝"	½"	30"
HP 12x84	12¼"	12¼"	1 1/16"	24"
x74	12⅛"	12¼"	⅝"	24"
x63	12"	12⅛"	½"	24"
x53	11¾"	12"	7/16"	24"
HP 10x57	10"	10¼"	9/16"	24"
x42	9¾"	10⅛"	7/16"	24"
HP 8x36	8"	8⅛"	7/16"	18"



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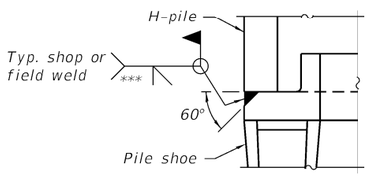
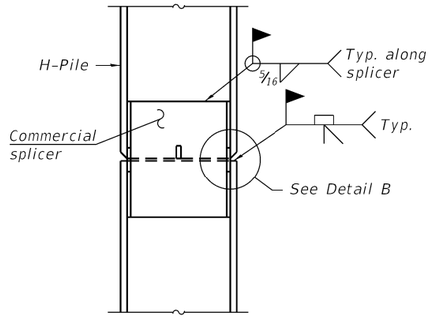


DETAIL A

SHOE ATTACHMENT

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



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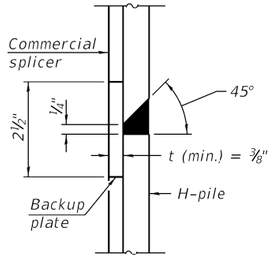
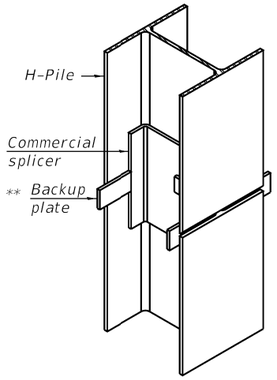
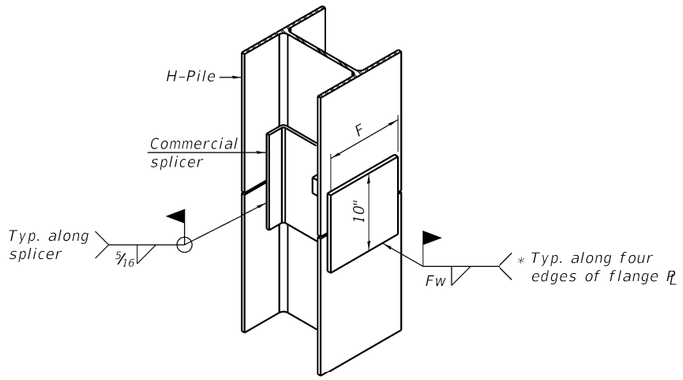


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



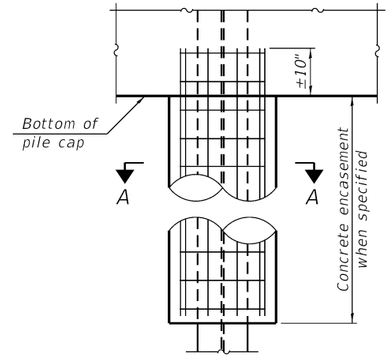
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds ¼" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (7/16" min.).



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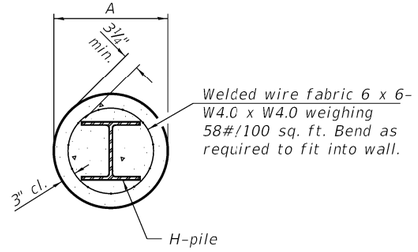
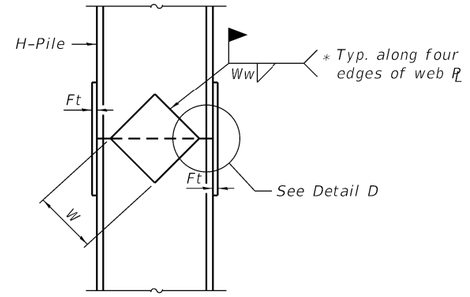


SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

(Forms for encasement may be omitted when soil conditions permit).



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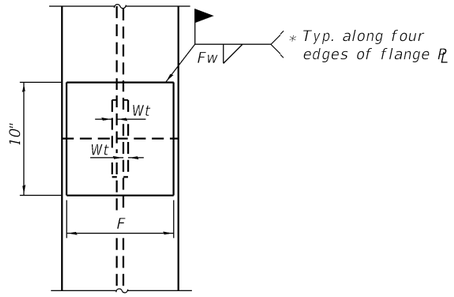
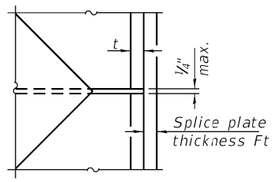


END VIEW



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12½"	1"	⅞"	7¾"	⅝"	½"
x102	12½"	⅞"	¾"	7¾"	⅝"	½"
x89	12½"	¾"	1 1/16"	7¾"	⅝"	½"
x73	12½"	⅝"	9/16"	7¾"	⅝"	½"
HP 12x84	10"	⅞"	1 1/16"	6½"	⅝"	½"
x74	10"	⅞"	1 1/16"	6½"	⅝"	½"
x63	10"	⅝"	½"	6½"	½"	⅜"
x53	10"	⅜"	½"	6½"	½"	⅜"
HP 10x57	8"	¾"	9/16"	5¼"	½"	⅜"
x42	8"	⅝"	9/16"	5¼"	½"	⅜"
HP 8x36	7"	⅝"	7/16"	4¼"	½"	⅜"

WELDED PLATE FIELD SPLICE

F-HP 8-11-2017

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HP PILE DETAILS
STRUCTURE NO. 077-3145

SCALE: | SHEET 27 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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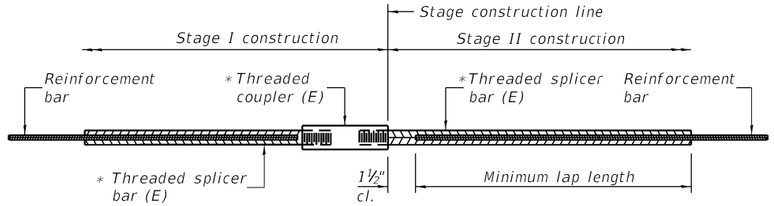
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

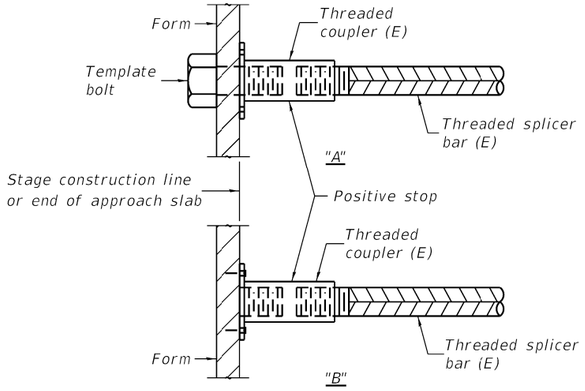


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1½" + thread length

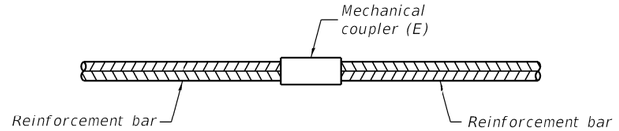
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length



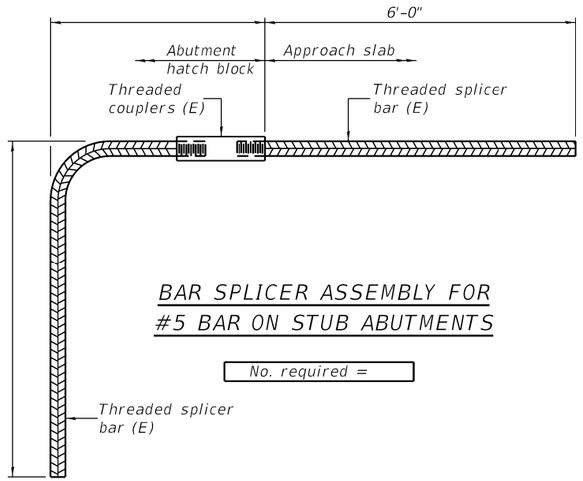
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier 1	#11	174
Pier 2	#11	174



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

2-17-2017

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BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 077-3145

SCALE: | SHEET 28 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	43
		CONTRACT NO. 99678		
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Bridge Foundation Boring Log

Project: H-19049
Section: 12-00071-00-BR
Structure:
County: Pulaski
Bridge Post Creek Cut Off Bridge
Station
Date: 6/4/2019
Bored by: J. Carter
Checked By: T. Holcomb

Boring No: 1
Station: 31+64.17
Offset:

Surface Water Elev.
Ground Water Elev. During Drilling Dry
Upon Completion 353.85

Elevation		N	Qu tsf	w %
Ground Surface 363.85	0			
18" Asphalt				
Brown Mottled Gray Silty CLAY (A-6)		9	3.0B	23
	-5	5	3.8B	17
		3	0.9D	26
	355.35			
Gray Mottled Brown Silty CLAY (A-6)	-10	7	2.3S	26
	352.85			
Brown Mottled Gray Silty CLAY (A-6)		10	2.0S	26
	-15	8	1.9S	26
		8	2.9B	20
	345.35			
Brown Silty CLAY (A-6)	-20	8	1.6B	20
		10	1.3S	18
silty clay (continued)	340.35			
Brown Mottled Gray Silty SAND (A-2-4)	-25	11	1.4B	17
		15	1.1S	18
	-30	31	--	23
	330.35			
Gray Silty CLAY to Sandy CLAY (A-6)	-35	8	1.2B	22
	324.35	33	--	17
Brown Mottled Gray SAND (A-2-4)	-40			
	320.35	100/2"	--	11
Gray LIMESTONE with Gray Sandy CLAY (A-6)				

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"

Qu-Unconfined Compressive Strength in tons/sq.ft.
w-Water Content-percentage of oven dry weight-%

B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

HOLCOMB FOUNDATION ENGINEERING INC.
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Bridge Foundation Boring Log

Project: H-19049
Section: 12-00071-00-BR
Structure:
County: Pulaski
Bridge Post Creek Cut Off Bridge
Station
Date: 6/4/2019
Bored by: J. Carter
Checked By: T. Holcomb

Boring No: 1
Station: 31+64.17
Offset:

Surface Water Elev.
Ground Water Elev. During Drilling Dry
Upon Completion 353.85

Elevation		N	Qu tsf	w %
limestone with sandy clay (continued)	-45			
	315.35			
Brown Silty CLAY to Sandy CLAY (A-6)	-50	27	1.8S	28
	313.35			
Gray LIMESTONE				
Recovery = 95% RQD = 82%			RC	
	-55			
	308.35			
End of Boring @ -55.5'				

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"

Qu-Unconfined Compressive Strength in tons/sq.ft.
w-Water Content-percentage of oven dry weight-%

B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 077-3145

SCALE: | SHEET 29 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	44
		CONTRACT NO. 99678		
		ILLINOIS FED. AID PROJECT		

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393 Wood Road 618-529-5262
Carbondale, Il. 62901 618-457-8991 fax

Bridge Foundation Boring Log

Project: H-19049
Section: 12-00071-00-BR
Structure:
County: Pulaski

Bridge Post Creek Cut Off Bridge
Station

Date: 6/3/2019
Bored by: J. Carter
Checked By: T. Holcomb

Boring No: 2
Station: 31+64.17
Offset:

Surface Water Elev.
Ground Water Elev.
During Drilling 325.30
Upon Completion Plugged @ 360.80

Elevation	N	Qu tsf	w %
Ground Surface 363.80	0		
16" Asphalt			
Brown CLAY (A-6)	4	--	24
	6	--	-
-5	5	--	-
355.30			
Brown Mottled Gray CLAY (A-6)	6	0.8S	23
-10	6	0.7S	26
	9	1.4S	26
-15	9	2.0S	22
345.30			
Brown Silty CLAY (A-6)	8	1.9S	23
-20	9	2.1S	21
silty clay (continued)			
340.30			
Brown Mottled Gray CLAY with organics (A-6)	11	1.2S	17
-25			
337.80			
Brown Mottled Gray SAND (A-2-4)	19	1.9S	16
	19	1.1S	21
-30			
330.30			
Gray SAND (A-2-4)	25	1.5S	17
-35			
325.30			
Gray Mottled Brown SAND (A-2-4)	22	0.7S	16
-40			
320.30			
Gray Sandy CLAY (A-6)	24	1.1S	17

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"

Qu-Unconfined Compressive Strength in tons/sq.ft.
w-Water Content-percentage of oven dry weight-%

B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

HOLCOMB FOUNDATION ENGINEERING INC.
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Bridge Foundation Boring Log

Project: H-19049
Section: 12-00071-00-BR
Structure:
County: Pulaski

Bridge Post Creek Cut Off Bridge
Station

Date: 6/3/2019
Bored by: J. Carter
Checked By: T. Holcomb

Boring No: 2
Station: 31+64.17
Offset:

Surface Water Elev.
Ground Water Elev.
During Drilling 326.30
Upon Completion Plugged @ 360.80

Elevation	N	Qu tsf	w %
sandy clay (continued)	45		
-70			
315.30			
Brown Sandy CLAY (A-6)	22	2.4S	29
-50			
-75			
308.30	100		
-55			
Gray LIMESTONE 307.80	/1"	--	8
End of Boring @ -56.0'			
-80			
-60			
-85			
-65			

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"

Qu-Unconfined Compressive Strength in tons/sq.ft.
w-Water Content-percentage of oven dry weight-%

B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 077-3145

SCALE: | SHEET 30 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	45
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

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393 Wood Road 618-529-5262
Carbondale, Il. 62901 618-457-8991 fax

Bridge Foundation Boring Log

Project: H-19049
Section: 12-00071-00-BR
Structure:
County: Pulaski
Bridge: Post Creek Cut Off Bridge
Station:
Date: 6/4/2019
Bored by: J. Carter
Checked By: T. Holcomb

Boring No: 3
Station: 34+46.83
Offset:

Surface Water Elev.
Ground Water Elev.
During Drilling 306.66
Upon Completion 343.66

Elevation	N	Qu tsf	w %	
363.66				Ground Surface 0 8" Asphalt
	9	--	-	Brown Mottled Gray Silty CLAY to Sandy CLAY (A-6)
	6	1.4S	22	
357.66				
	8	--	22	Gray Mottled Brown Silty CLAY (A-6)
355.16				
	9	1.8S	25	Brown Mottled Gray Silty CLAY (A-6)
	6	1.7S	25	
	6	1.9S	21	
	7	1.8S	19	
	6	1.4S	19	
320.16				
	19	1.4S	17	Gray Weathered LIMESTONE

Elevation	N	Qu tsf	w %	
				silty clay (continued)
	12	2.5S	17	
337.66				
	16	0.9S	18	Brown Mottled Gray Silty CLAY to Sandy CLAY (A-6)
335.16				
	17	--	10	White Mottled Brown SAND (A-2-4)
	16	--	13	
	15	0.5S	25	Gray Mottled Brown Silty SAND (A-2-4)
	/3"	--	19	

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"

Qu-Unconfined Compressive Strength in tons/sq.ft.
w-Water Content-percentage of oven dry weight-%

B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

HOLCOMB FOUNDATION ENGINEERING INC.
393 Wood Road 618-529-5262
Carbondale, Il. 62901 618-457-8991 fax

Bridge Foundation Boring Log

Project: H-19049
Section: 12-00071-00-BR
Structure:
County: Pulaski
Bridge: Post Creek Cut Off Bridge
Station:
Date: 6/4/2019
Bored by: J. Carter
Checked By: T. Holcomb

Boring No: 3
Station: 34+46.83
Offset:

Surface Water Elev.
Ground Water Elev.
During Drilling 306.66
Upon Completion 343.66

Elevation	N	Qu tsf	w %	
				weathered limestone (continued)
315.16				
	21	0.4S	25	Gray Sandy CLAY with limestone (A-6)
	19	--	19	
306.16				
	100/1"	--	6	Gray LIMESTONE
	rc			Recovery = 79% RQD = 77%
300.66				
				End of Boring @ -63.0'

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"

Qu-Unconfined Compressive Strength in tons/sq.ft.
w-Water Content-percentage of oven dry weight-%

B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

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HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmarn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 077-3145

SCALE: | SHEET 31 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	46
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

HOLCOMB FOUNDATION ENGINEERING INC.
393 Wood Road 618-529-5262
Carbondale, Il. 62901 618-457-8991 fax

Bridge Foundation Boring Log

Project: H-19049
Section: 12-00071-00-BR
Structure:
County: Pulaski

Bridge Post Creek Cut Off Bridge
Station

Date: 6/4/2019
Bored by: J. Carter
Checked By: T. Holcomb

Boring No: 4
Station: 34+46.83
Offset:

Surface Water Elev.
Ground Water Elev.
During Drilling Dry
Upon Completion Plugged @ 360.68

Material	Elevation	N	Qu tsf	w %
Ground Surface 363.68 0				
18" Asphalt				
Brown CLAY with sand (A-6)		6	1.4S	20
	-5	3	1.0B	22
357.68				
Gray Mottled Brown CLAY (A-6)		6	1.6S	22
355.18				
Brown Mottled Gray CLAY (A-6)	-10	6	1.6S	27
		5	1.2B	28
	-15	5	0.3B	29
		5	1.7S	20
345.18				
Brown Mottled Gray Sandy CLAY (A-6)	-20	6	1.2S	20
		10	3.7S	18
sandy clay (continued)	-25	14	3.4S	19
337.68				
Gray Mottled Brown SAND (A-2-4)		25	--	18
335.18				
White Mottled Brown SAND (A-2-4)	-30	19	--	18
	-35	20	--	11
325.18				
Gray Sandy Clay (A-6)	-40	16	0.7S	27
320.18				
Gray LIMESTONE		100/1"	--	8

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"

Qu-Unconfined Compressive Strength in tons/sq.ft.
w-Water Content-percentage of oven dry weight-%

B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

HOLCOMB FOUNDATION ENGINEERING INC.
393 Wood Road 618-529-5262
Carbondale, Il. 62901 618-457-8991 fax

Bridge Foundation Boring Log

Project: H-19049
Section: 12-00071-00-BR
Structure:
County: Pulaski

Bridge Post Creek Cut Off Bridge
Station

Date: 6/4/2019
Bored by: J. Carter
Checked By: T. Holcomb

Boring No: 4
Station: 34+46.83
Offset:

Surface Water Elev.
Ground Water Elev.
During Drilling Dry
Upon Completion Plugged @ 360.68

Material	Elevation	N	Qu tsf	w %
limestone (continued)	-45			
Recovery = 52% RQD = 0%			rc	
313.68	-50			
Gray SANDSTONE with LIMESTONE and clay mix				
Recovery = 22% RQD = 0%			rc	
309.68				
End of Boring @ -54.0'	-55			
	-60			
	-65			
	-70			
	-75			
	-80			
	-85			

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"

Qu-Unconfined Compressive Strength in tons/sq.ft.
w-Water Content-percentcge of oven dry weight-%

B = Bulge Failure
S = Shear Failure
E = Estimated Value
P = Penetrometer

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HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

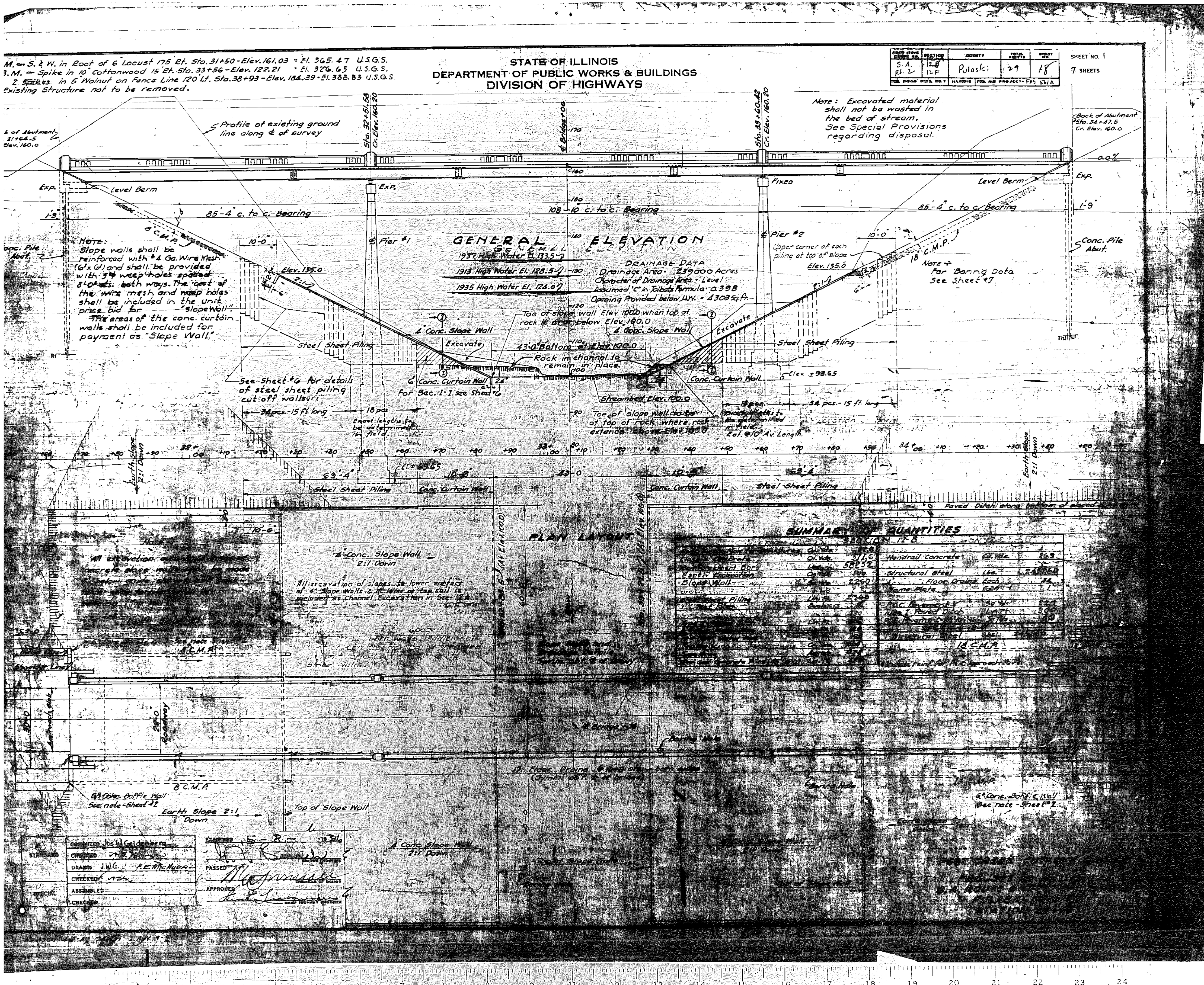
USER NAME = bchristmarn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/7/2025	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 077-3145

SCALE: | SHEET 32 OF 32 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	47
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		



HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR IL PROF. DESIGN FIRM NO. 184.000899	USER NAME = bchristmann	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 077–3000 EXISTING STRUCTURE PLANS
FOR INFORMATION ONLY

SCALE: | SHEET 1 OF 6 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	48

CONTRACT NO. 99678
ILLINOIS | FED. AID PROJECT

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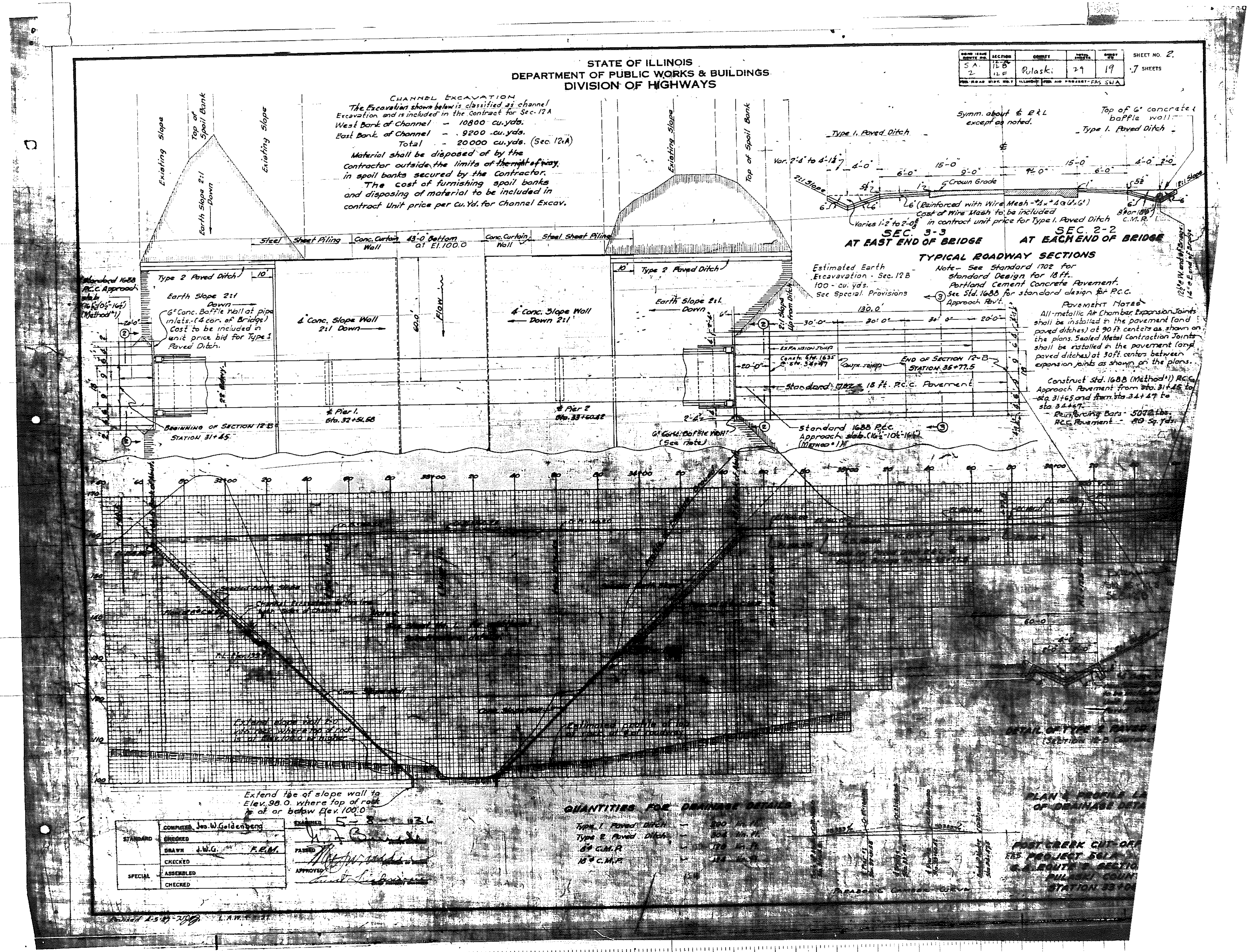

HMG ENGINEERS	HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR	USER NAME = bchristmann	DESIGNED -	REVISED -
IL PROF. DESIGN FIRM NO. 184.000899		PLOT SCALE = 2.0000 ' / in.	DRAWN -	REVISED -
		PLOT DATE = 10/7/2025	CHECKED -	REVISED -
			DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 077–3000 EXISTING STRUCTURE PLANS
FOR INFORMATION ONLY

SCALE: SHEET 2 OF 6 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	49

CONTRACT NO. 99678

ILLINOIS FED. AID PROJECT

MODEL: Default
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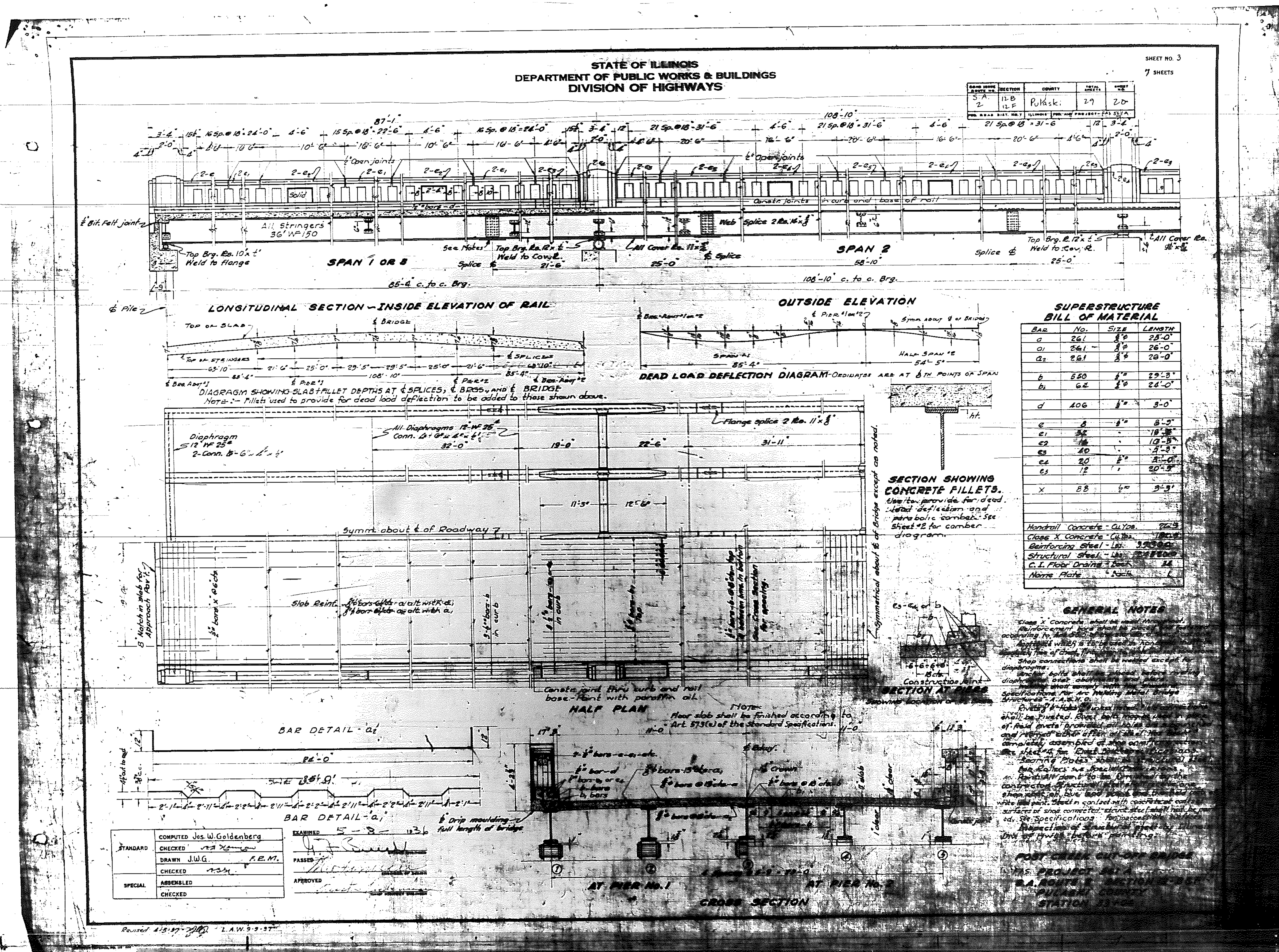

HMG ENGINEERS HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR IL PROF. DESIGN FIRM NO. 184.000899	USER NAME = bchristmann PLOT SCALE = 2.0000 ' / in. PLOT DATE = 10/7/2025	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 077–3000 EXISTING STRUCTURE PLANS
FOR INFORMATION ONLY

SCALE: | SHEET 3 OF 6 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	50

CONTRACT NO. 99678

ILLINOIS | FED. AID PROJECT

MODEL: Default
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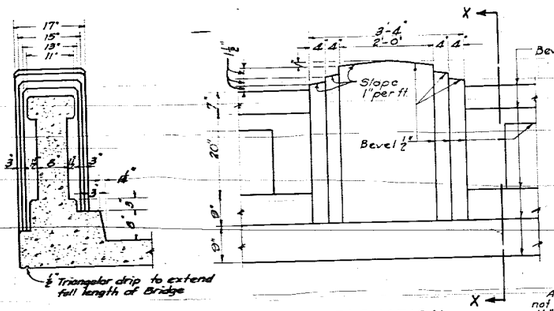
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5 A 2	12 B 12 F	Pulaski	29	21
ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - FAS 5617A		

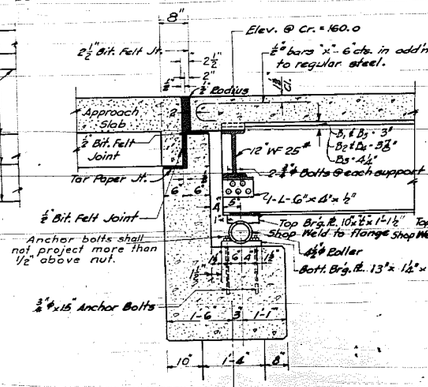
SHEET NO. 4
7 SHEETS



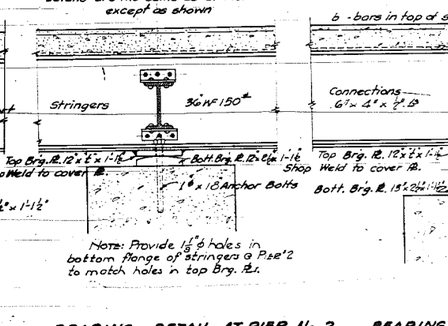
SECTION-XX ELEVATION

POST DETAILS

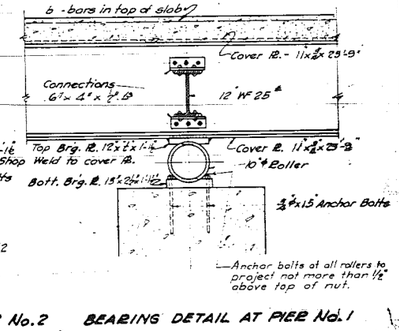
Bevel all edges of railing and rail posts ½" except as noted.



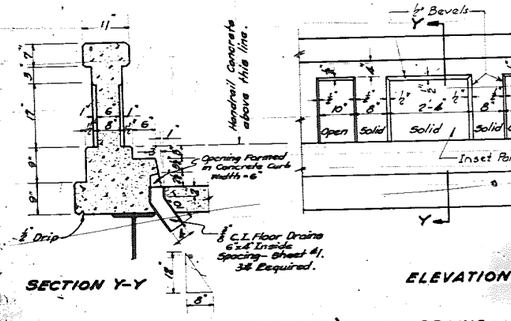
BEARING DETAIL AT ABUTMENTS



BEARING DETAIL AT PIER No.2



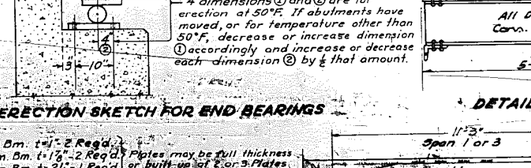
BEARING DETAIL AT PIER No.1



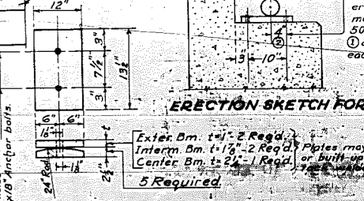
SECTION Y-Y

ELEVATION

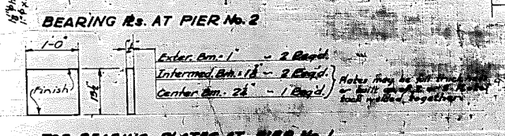
DETAILS - RAILING & FLOOR DRAINS



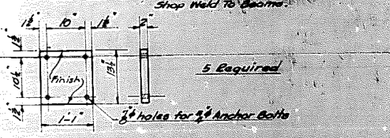
ERECTION SKETCH FOR END BEARINGS



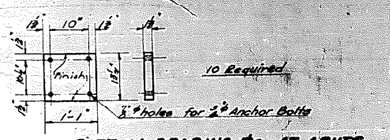
BEARING Pls. AT PIER No. 2



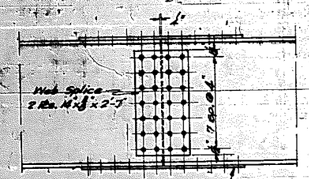
TOP BEARING PLATES AT PIER No. 1
Shop Weld To Beams



BOTTOM BEARING Pls. AT PIER No. 1.

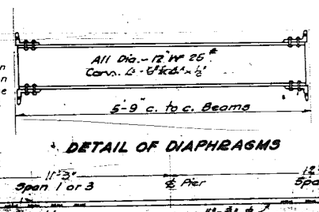


BOTTOM BEARING Pls. AT ABUTS.

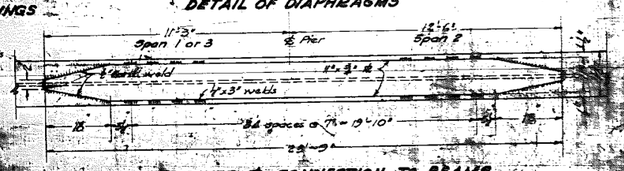


WEB SPLICE

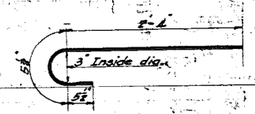
FLANGE SPLICE
All splices shall be subpunched, assembled in the shop and reamed.



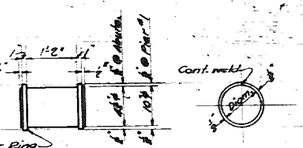
DETAIL OF DIAPHRAGMS



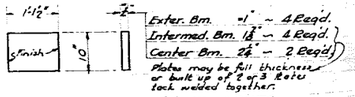
DETAIL OF COVER Pl. CONNECTION TO BEAMS
Shop Welded



DETAIL BAR - "X"



DETAIL OF ROLLERS
4½" Dia. - 10 Req'd. 10" Dia. - 5 Req'd.



TOP BEARING Pls. AT ABUTS.
Shop Weld To Beams
⅜" Continuous welds.

STANDARD	COMPUTED	Jos W. Goldenberg	
	CHECKED	H.B. Mayo	
	DRAWN	J.W.G.	R.E.M.
	CHECKED	H.B.M.	
SPECIAL	ASSEMBLED		
	CHECKED		

EXAMINED 5-5-1936
PASSED
APPROVED

NOTE:
The floor slab shall preferably be poured in one continuous operation. If a construction joint is used, it shall be placed approx. at the ℄ of a beam splice as directed by the Engineer. Splices in Spans 1 & 3 may be made in field before erection, if desired.
Rivet bolts shall be made of steel complying with the following specifications:
Carbon 0.18% to 0.24%
Manganese 0.75% to 1.00%
Ultimate strength not less than 70,000 lbs. per sq. in.

POST CREEK CUT-OFF BRIDGE
F.A.S. PROJECT 561(A-1)-2
S.A. ROUTE 2 SECTION 12-B&F
PULASKI COUNTY
STATION 33+06

Revised: March 29-1937 - 7/1/37 L.A.W 9-9-37

MODEL: Default
FILE NAME: H:\1073 Pulaski\Co. CH2\2025-PSE Updates\CAD Sheets\077300 48-53 ExistingPlans 7073.dgn

HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmarn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 077-3000 EXISTING STRUCTURE PLANS
FOR INFORMATION ONLY

SCALE: | SHEET 4 OF 6 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	51
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		

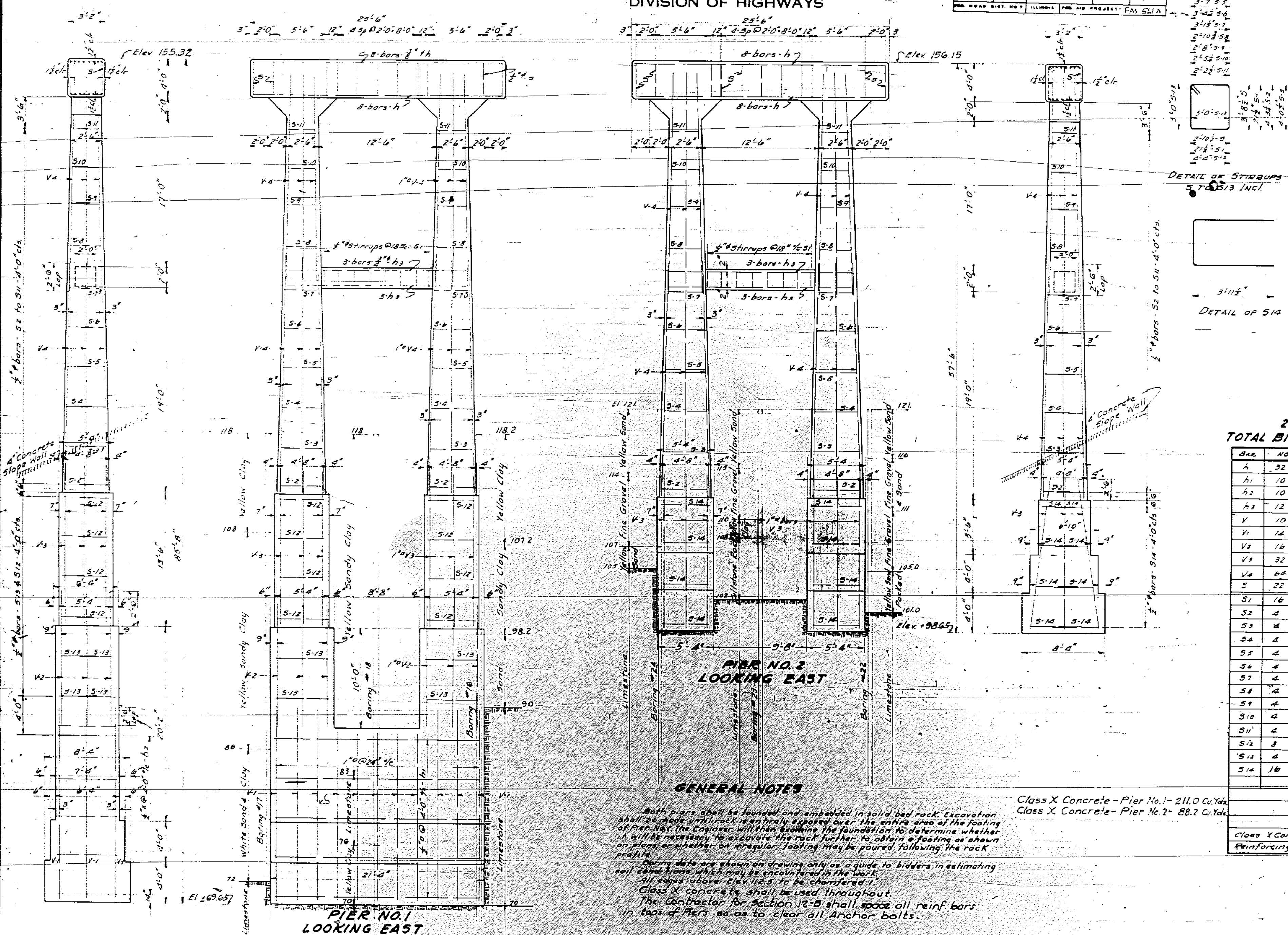
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.A. Rt. 2	12 B 12 F	Pulaski	29	22

FAS 561A

SHEET NO. 5
7 SHEETS

B.M. Sq W in Root of 6" Locust 175' Rt Sta 31+50 Elev 161.03
T.B.M. Spike in 10" Cottonwood 15' Rte Sta 33+56 El 122.21



2 PIERS
TOTAL BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH
h	32	7/8"φ	25'-0"
h1	10	1/2"□	20'-9"
h2	10	1/2"□	6'-0"
h3	12	3/4"φ	16'-6"
V	10	1"□	17'-9"
V1	14	1"□	20'-6"
V2	16	1"□	12'-6"
V3	32	1"□	16'-0"
V4	64	1"□	22'-6"
S	22	1/2"φ	14'-0"
S1	16	1/2"φ	8'-0"
S2	4	1/2"φ	17'-9"
S3	4	1/2"φ	17'-0"
S4	4	1/2"φ	16'-0"
S5	4	1/2"φ	15'-0"
S6	4	1/2"φ	14'-3"
S7	4	1/2"φ	13'-3"
S8	4	1/2"φ	12'-3"
S9	4	1/2"φ	11'-6"
S10	4	1/2"φ	10'-6"
S11	4	1/2"φ	9'-6"
S12	8	1/2"φ	18'-0"
S13	4	1/2"φ	20'-9"
S14	16	1/2"φ	12'-3"

Class X Concrete - Pier No. 1 - 211.0 Cu. Yds.
Class X Concrete - Pier No. 2 - 88.2 Cu. Yds.

Class X Concrete Cu. Yds. 299.2
Reinforcing Steel Lbs 12000

GENERAL NOTES

Both piers shall be founded and embedded in solid bed rock. Excavation shall be made until rock is entirely exposed over the entire area of the footing of Pier No. 1. The Engineer will then examine the foundation to determine whether it will be necessary to excavate the rock further to obtain a footing as shown on plans, or whether an irregular footing may be poured following the rock profile.

Boring data are shown on drawing only as a guide to bidders in estimating soil conditions which may be encountered in the work.

All edges above Elev. 112.5 to be chamfered 1".

Class X concrete shall be used throughout.

The Contractor for Section 12-B shall space all reinf. bars in tops of Piers so as to clear all Anchor bolts.

STANDARD	COMPUTED	N. J. Kamman
	CHECKED	M. P. SUPERAK
	DRAWN	N. J. Kamman
	CHECKED	M. P. S.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 4-10-1921
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

POST CREEK CUT-OFF BRIDGE
F.A.S. PROJECT 561A
S.A. RTE 2 SECTION 12 B
PULASKI COUNTY
STATION 33+06

MODEL: Default
FILE NAME: H:\7073_PulaskiCo CH2\2025_PSE Updates\CAD Sheets\0773000 48-53 ExistingPlans 7073.dgn

HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR	USER NAME = bchristmann	DESIGNED -	REVISED -
IL PROF. DESIGN FIRM NO. 184.000899		DRAWN -	REVISED -
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/7/2025	DATE -	REVISED -

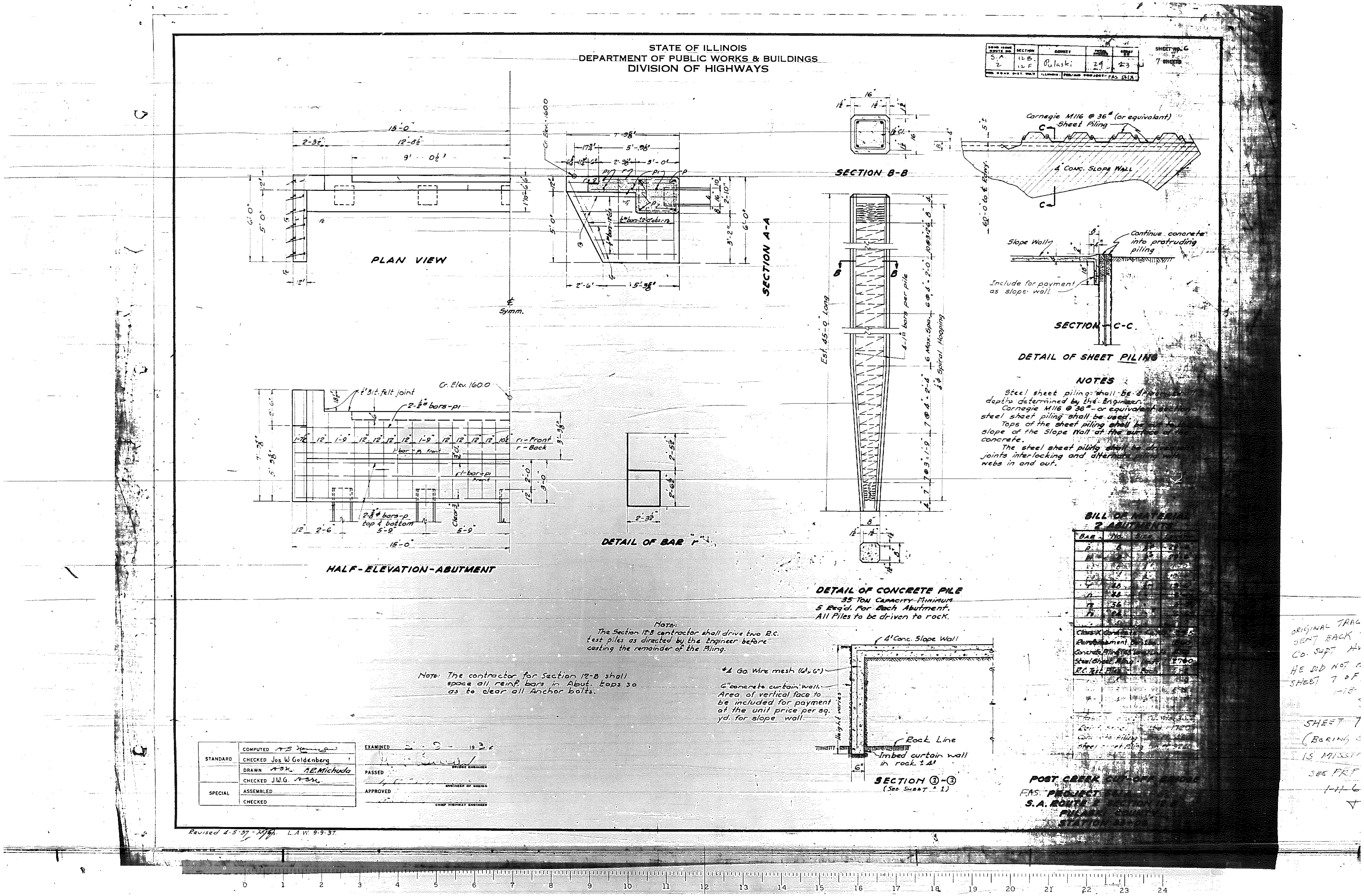
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 077-3000 EXISTING STRUCTURE PLANS
FOR INFORMATION ONLY

SCALE: SHEET 5 OF 6 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	52

CONTRACT NO. 99678
ILLINOIS FED. AID PROJECT



HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR	USER NAME = bchristmann	DESIGNED -	REVISED -
IL PROF. DESIGN FIRM NO. 184.000899		DRAWN -	REVISED -
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 077–3000 EXISTING STRUCTURE PLANS
FOR INFORMATION ONLY

SCALE: | SHEET 6 OF 6 SHEETS | STA. | TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	53

CONTRACT NO. 99678

ILLINOIS | FED. AID PROJECT

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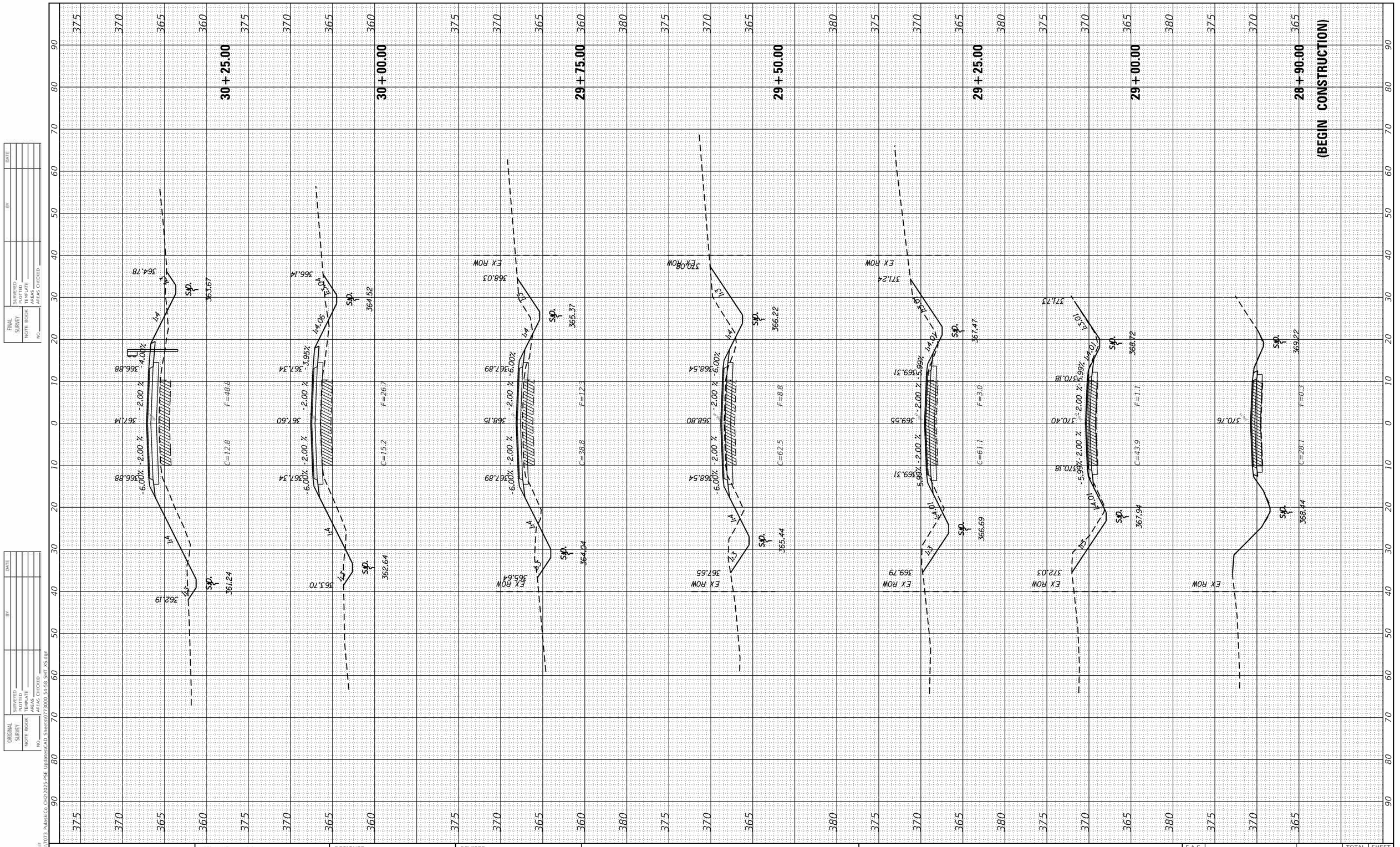

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

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HMG ENGINEERS
HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR
IL PROF. DESIGN FIRM NO. 184.000899

USER NAME = bchristmann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in	CHECKED -	REVISED -
PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

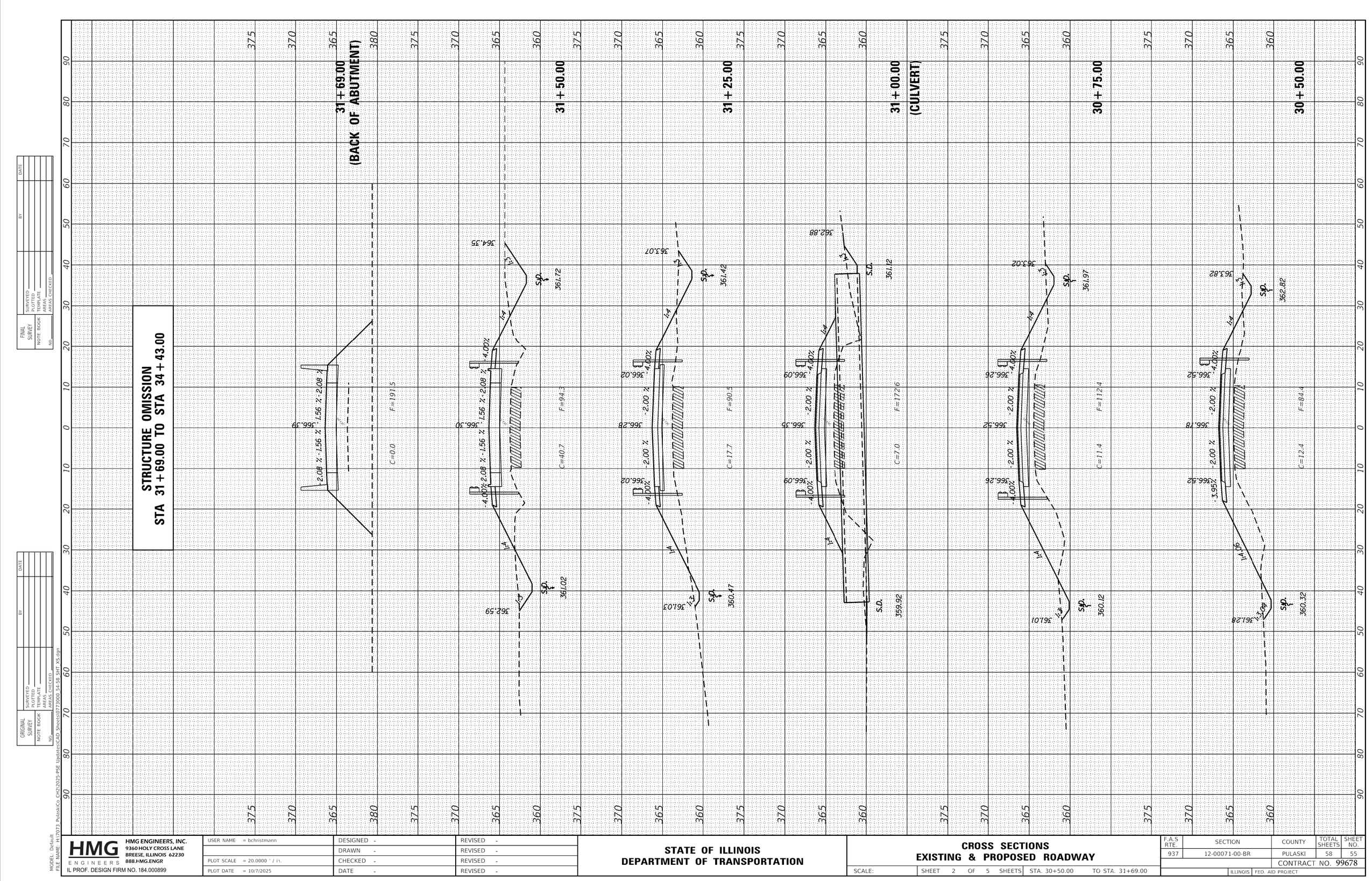
CROSS SECTIONS
EXISTING & PROPOSED ROADWAY

SCALE: | SHEET 1 OF 5 SHEETS | STA. 28+90.00 | TO STA. 30+25.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	54
		CONTRACT NO. 99678		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		SURVEYED		BY		DATE
NOTE BOOK		PLOTTED				
NO.		TEMPLATE				
		AREAS				
		AREAS CHECKED				

STRUCTURE OMISSION
STA 31+69.00 TO STA 34+43.00



ORIGINAL SURVEY		SURVEYED		BY		DATE
NOTE BOOK		PLOTTED				
NO.		TEMPLATE				
		AREAS				
		AREAS CHECKED				

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HMG ENGINEERS, INC.	USER NAME = bchristmann	DESIGNED -	REVISED -
9360 HOLY CROSS LANE		DRAWN -	REVISED -
BREESE, ILLINOIS 62230	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
888.HMG.ENGR	PLOT DATE = 10/7/2025	DATE -	REVISED -
IL PROF. DESIGN FIRM NO. 184.000899			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
EXISTING & PROPOSED ROADWAY

SCALE: | SHEET 2 OF 5 SHEETS | STA. 30+50.00 | TO STA. 31+69.00

F.A.S RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	55
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

35+75.00

C=91.8 F=54.7

35+50.00

C=98.2 F=64.3

35+25.00

C=69.5 F=73.0

35+00.00

C=68.9 F=78.8

34+75.00

C=150.6 F=88.4

34+50.00

C=117.6 F=76.3

34+43.00
(BACK OF ABUTMENT)

C=25.2 F=175.4

MODEL: Default
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HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR	USER NAME = bchristmann	DESIGNED -	REVISED -
IL PROF. DESIGN FIRM NO. 184.000899		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

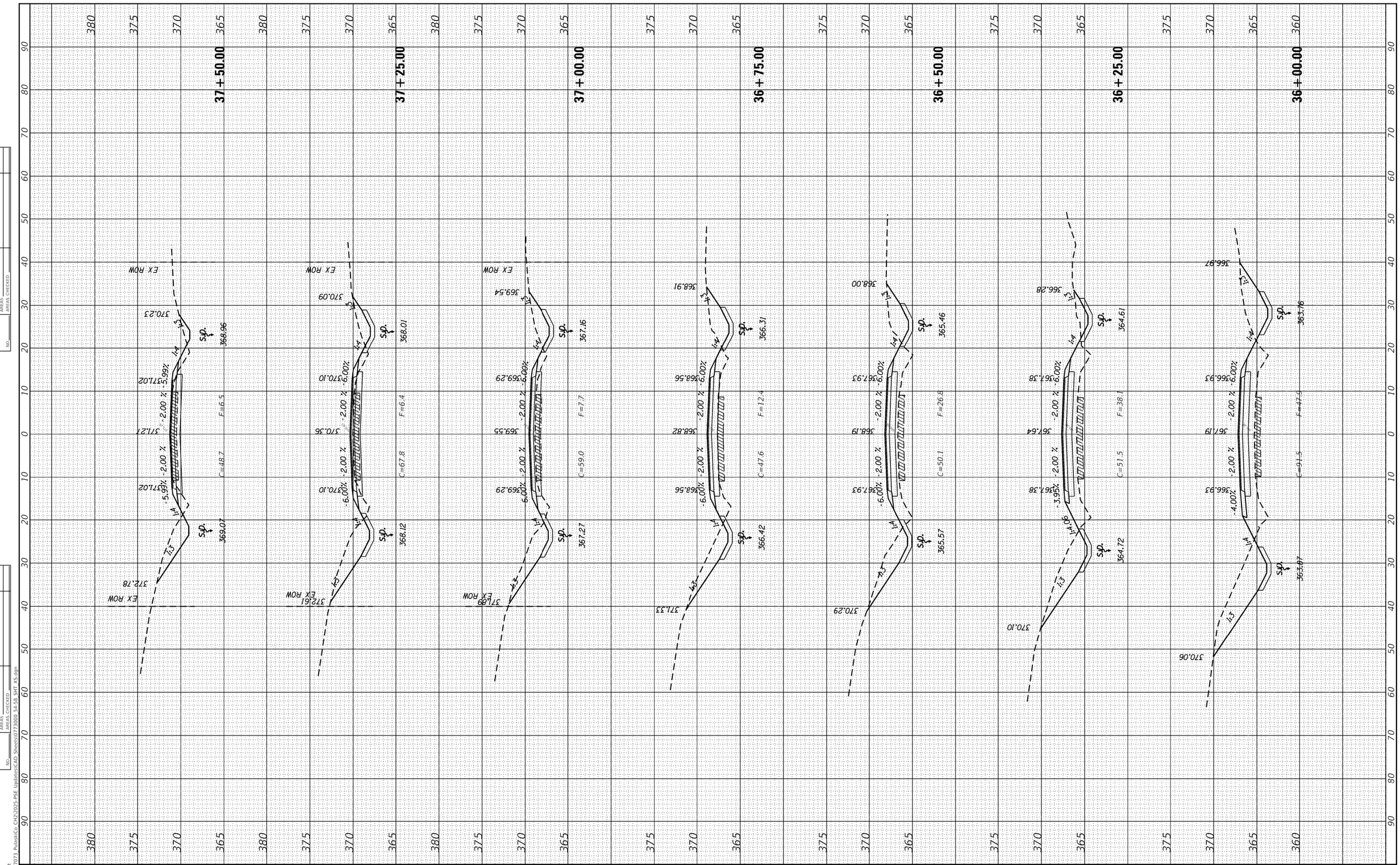
CROSS SECTIONS
EXISTING & PROPOSED ROADWAY

SCALE: | SHEET 3 OF 5 SHEETS | STA. 34+43.00 | TO STA. 35+75.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	56
		CONTRACT NO. 99678		
		ILLINOIS	FED. AID PROJECT	

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



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HMG ENGINEERS	HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR	USER NAME = bchristmann	DESIGNED -
IL PROF. DESIGN FIRM NO. 184.000899			DRAWN -
		PLOT SCALE = 20.0000 ' / in.	CHECKED -
		PLOT DATE = 10/7/2025	DATE -

REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS EXISTING & PROPOSED ROADWAY
REVISED -		
REVISED -		
REVISED -		SCALE: SHEET 4 OF 5 SHEETS STA. 36+00.00 TO STA. 37+50.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	57
		CONTRACT NO. 99678		
		ILLINOIS FED. AID PROJECT		

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

MODEL: Default
FILE NAME: H:\7073 Pulaski\Co CH2\2025-PSE Updates\CAD Sheets\07773000_54-58 SHT XS.dgn

HMG ENGINEERS, INC. 9360 HOLY CROSS LANE BREESE, ILLINOIS 62230 888.HMG.ENGR IL PROF. DESIGN FIRM NO. 184.000899	USER NAME = bchristmann	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/7/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
EXISTING & PROPOSED ROADWAY

SCALE: | SHEET 5 OF 5 SHEETS | STA. 37+75.00 | TO STA. 37+90.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
937	12-00071-00-BR	PULASKI	58	58
		CONTRACT NO. 99678		
	ILLINOIS	FED. AID PROJECT		